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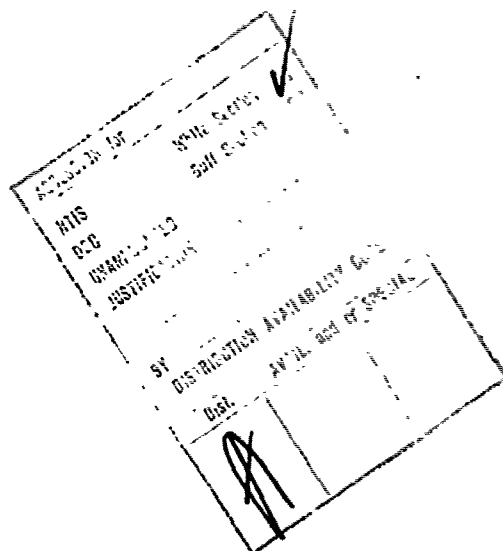
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The study produced information along several major objectives. In support of human resources management, the results inform on Filipino perceptions and attitudes in respect to their Naval service—service life conditions, relationship to Naval personnel, superiors and peers, etc. The findings indicate that communication and interpersonal relations between Filipinos and their American peers require particular attention and call for special training facilitating adaptation and communication.

The extensive material produced on Filipino cultural dispositions describes the Filipino frame of reference in several important domains, including education, work, interpersonal relations, and racial problems. The findings show considerable similarities as well as areas of important differences in priorities and ways of thinking between American and Filipino servicemen. They provide timely information for training programs designed to promote cultural understanding, better race relations, and effective leadership.

On the effects of Naval experience, the data obtained on the Filipinos show the rate of cultural adaptation as a function of time. By the comparison of hundreds of thousands of American and Filipino reactions obtained from samples with short (recruits), medium (1-10 years), and long (up to 25 years) service experiences, the analysis reveals previously unexplored perceptual and attitudinal dimensions of cultural adaptation. The information obtained helps to identify areas of adaptation where the progress is particularly slow and could be effectively helped by adequate institutional measures and training.



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Filipinos in the Navy: Service, Interpersonal Relations and Cultural Adaptation

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January 1977

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FOREWORD

The integration and adaptation of Filipinos, natives of the subtropical islands of the South China Sea, into the highly organized and institutionalized life of the U.S. Navy is the central subject of the present report.

In this age of computers we can find out in seconds many things about the Filipino Navy men: what are the jobs they do, how much they earn, how many days they were sick last year. Their supervisors can also readily tell us that Filipinos are friendly and polite people and dependable workers, an asset to the Navy. The present report undertakes to answer questions for which computers and supervisors do not have ready answers: how do Filipinos feel about their environment, how do they adapt to their new life conditions, to a drastically different social milieu.

As the report is rather lengthy and addresses numerous specific details, the presentation begins with a summary of the findings and recommendations. Part I focuses on how the Filipinos view their life in the service, their level of satisfaction in general and from the angle of the "equal opportunity" principle in particular. Part II addresses problems of communication and interpersonal relations which acquire particular relevance in regard to the cultural and racial background of the Filipinos, who traditionally place a great emphasis on warm personal relations. Part III is focused on the question of how different is the Filipino's cultural frame of reference from the American to begin with, and how much does it change as a result of time spent in the U.S. environment.

The study provides solidly founded empirical information that can be effectively used by a culturally sensitive personnel management and leadership to increase personnel satisfaction and service motivation. Furthermore, the information presented in the report, plus much more that was not printed because of space limitations, offers useful material for leadership and race relations training in preparing U.S. Navy men for cultural understanding and increased effectiveness when working in groups composed of members representing different cultural backgrounds and experiences. The increasingly pluralistic composition of the U.S. Navy and the worldwide scope of her international involvement make the acquisition of cultural knowledge and interaction skills highly desirable.

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GENERAL FINDINGS AND RECOMMENDATIONS

The present investigations were organized to gain timely information on Filipino servicemen, their relationship to the Naval service and their adaptation to American life and culture. In view of their foreign recruitment, cultural background, language, and frame of reference, the 20,000 Filipino servicemen represent a sizable group which is unique in several ways. They represent a sort of enigma to management as well as to their American-born shipmates. Yet, Filipino servicemen have received in the past little special interest. The Human Resource Management Survey conducted on a Navy-wide basis produced results which appeared contradictory and underscored our lack of knowledge of Filipinos.

Our investigations were centered on salient dimensions of the Filipinos' frame of reference, whereby special attention was given to characteristics related to service satisfaction and cultural adaptation.

Service Satisfaction

In its attempts to clarify previous survey results, the present study found that Filipino Naval personnel generally had highly positive attitudes toward Naval service and the Navy as an institution. These attitudes prevail despite feelings that their chances for advancement are more limited and that their educational opportunities do not equal those of the American servicemen. In general, the Filipino Navy men showed a tendency to expect less and to be more satisfied with their present situation than their American shipmates. This tendency should not be interpreted as an insensitivity to inequities or a lack of aspirations. The reference points Filipinos use are quite different from those of their American peers, probably because of their wide range of experiences with different social systems and economic conditions. Furthermore, in view of their different cultural background, Filipino servicemen differ from their native American peers in their priorities and in the emphasis they place on equal opportunity. Filipinos appreciate their jobs, like their work, and are generally satisfied with their personnel evaluations and with the status quo of their work situation. On the other hand, many Filipinos expressed the desire to move

from the field of food services and food processing into more prestigious areas such as electronics and aviation, and most feel they are sufficiently qualified for reassignment and promotion. They are eager to receive advanced training and education. They think there are training opportunities and schools to meet their needs, but expressed serious doubts that they would be given access.

In general, the results show considerable discrepancies between the actual life conditions of the Filipinos and the goals set by the equal opportunity program. In face of these discrepancies it is surprising to find in this study as well as in the HRM Survey that the high level of service satisfaction exceeds in many respects not only the other minorities but positive attitudes of the white majority. The present investigations suggest that the Filipinos clearly register the discrepancies, but have a lower level of expectations compared to American-born Navy men. Furthermore, the Filipinos have somewhat different priorities, and the salience of the material discrepancies is slighted by the importance given to the interpersonal social dimension of service life which presents more sensitive problems for the Filipino servicemen.

Communication

Except for their service contacts, Filipinos have limited interaction with their American peers. One ready explanation is communication problems, particularly those created by the Filipinos' foreign accent. The Filipinos bring from home a relatively high level of English language proficiency. Because of the multiplicity of mother tongues in the Philippines, English is the main language used in public education. As clearly supported by our test results, the Filipinos' English vocabulary, fluency, and skill in written expression of ideas closely matches the performance of the American servicemen of comparable educational background. In general, the Filipinos take a certain pride in their English competence---a feeling which adds to their frustration when treated with impatience and discrimination because of their language and accent. With time the Filipinos become aware of the disadvantages generated by their accent but they generally fail to recognize its social consequences in their actual proportions. They do not hear their own accent, and have even more difficulty anticipating the subjective

impressions it conveys to Americans---as substandard, deviant, laden with unfavorable social and intellectual connotations.

Filipinos put "impatience with accent" in first place when characterizing their American-born shipmates. They are obviously bothered and confused and are inclined to interpret the impatience or avoidance as a sign of racism and ethnocentrism. In this light, accent becomes part of a much larger problem involving the Filipinos' relationship to their social environment in their host country.

Interpersonal Relations

Probably the most apparent characteristics of Filipino social behavior is sticking together, forming peer groups, which include exclusively Filipinos. This clustering becomes readily apparent to any superficial observer and gives the impression that Filipinos may segregate, because they are reluctant to accept others, reluctant to include non-Filipinos, whether White or Black, into their friendship circles. Some of our findings indicate this may be more a reaction stimulated by external conditions than a personal preference. There are various indications that as a small minority in a host environment, the Filipino servicemen feel that they do not receive sufficient attention and recognition.

The extensive Filipino reactions capitalizing on social relations and on social attributes support the contention of area experts that the Filipinos assign traditionally great importance to interpersonal relations. By their emphasis on social values---friendship, social recognition, social obligation, lasting personal ties---the Filipinos show high sensitivity to the need for maintaining good interpersonal relations. This explains their emphasis on such human qualities as loyalty, respect, pride, honor, kindness, understanding.

This social frame of reference, the importance given to close personal ties and obligations, may partially explain why Filipinos are sensitive about the relative lack of personal contacts with their American peers. This sensitivity is probably intensified by their foreign origin, minority status, and economic and racial differences in a host environment which is affluent and is laden with racial problems and tensions.

the results show that the Filipinos are highly aware of and sensitive to race and racial differences. They reveal strong dispositions to view people in terms of their racial identity and to note physical attributes which bear on racial identification. The vividly contrasting dimensions of their imagery picturing Americans as tall, powerful, and White (or Black) and Filipinos as small, brave, and brown, suggest a tendency to view their own racial identity in contrasting terms to the host environment. The social focus of the Filipinos observed in a variety of contexts throughout the study and their strong racial sensitivities are trends which apparently mutually reinforce each other and deserve particular attention. They produce a social frame of reference which is apparently an important key to Filipino social behavior both within the Naval service and in personal contacts.

While it would probably not be compatible with their cultural style and pride to complain explicitly about their peers from the host country, the results show that the Filipinos consider their superiors more friendly, more approachable, and more trustworthy than their American peers.

The Filipinos express generally high regard and positive attitudes toward leadership; they are apparently less happy with the scarcity of contacts and personal relationships with their American peers. This lack of personal rapport with American peers appears to be responsible for the segregation of the Filipinos, a social phenomenon widely observed within the Navy. Both Filipino and American attitudes seem to contribute to this situation. From the part of the American servicemen rather than rejection, mainly lack of interest and lack of initiative in establishing personal rapport with Filipino shipmates are the dominant attitudes.

The results of the investigations show that in the social environment of the Navy, it is important to differentiate between peers and superiors. Peers have generally a closer relationship with each other than they have with their superiors. This pattern of relationship which is common for the American Navy men apparently does not apply to the Filipinos.

This unusual reversal of attitudes toward peers and superiors raises several questions. The first natural question is, whether the positive attitudes expressed toward superiors should be taken at face value. As the Filipino group is well known for its cultural disposition to show

strong deference toward social status and authority, numerous critics feel that the Filipinos' responses dealing with Navy and superiors are not reliable. To dissipate such doubts, our study has used beyond direct questions the word association method. The word association responses are not controlled by pointed questions. Furthermore, they were obtained under conditions of anonymity. The reactions to various roles and positions involving superiors show with consistency that the Filipinos do have a high natural regard for authority. They respect power, competent leadership. While Filipinos sincerely appreciate the Navy as an institution, they are more ambivalent about their American peers. The Filipinos seem to feel that in the U.S. Navy they receive more support from the institution and its leadership than from their shipmates.

Cultural Distance

How similar or different are Americans and Filipinos in their views and attitudes? How much do Filipino servicemen change in their way of thinking as a result of ten or twenty years service in the U.S. Navy? These questions refer to differences and changes in psychological variables, partially hidden below the level of awareness. Answers were obtained based on the comparison of hundreds of thousands of American and Filipino reactions, using a computerized analysis of their similarities and differences.

The psychocultural distance measured between the American and Filipino recruits was found to be smaller than the distance measured in previous investigations between American and other foreign culture groups. This suggests that the Filipinos stand closer to Americans in their original cultural dispositions---individualism, achievement orientation, competitiveness---than other foreign groups studied: Spanish Americans, Slovenians, Koreans, etc.

Cultural adaptation was measured by tracing changes in the distance of American and Filipino service groups having spent various amounts of time in the Navy. Reduction of distance was found to be a direct but nonlinear function of the time spent in the American environment. The rate of adaptation was found to be very slow. The original distance, as well as the rate of cultural adaptation, was found to vary in the domains

of life explored. The domain represented by a set of native Tagalog themes was generally unaffected by the process of cultural adaptation.

Parallel to cultural adaptation, the differences among the Filipinos, that is, between the recruit and the other samples, increased. Such an increase was observable during the first ten years of service, but no noticeable increase was registered beyond that period. The results suggest that the group with long service experiences continue in their adaptation without moving further away from the native cultural patterns. This is possible probably because cultural influences produce more complex moves rather than a convergence along a straight path representing the shortest distance between two cultures, in this case, the American and the Filipino.

A comparison of the American samples with short, medium, and long service experiences offers relevant baseline data. These data clearly show how the service experiences affect the American servicemen. Here again, the first ten years of service appeared to be more influential in producing changes than the second. Beyond the assessment of such general trends, the results offer extensive information on how the different service groups compare and what similarities or differences they develop over time in various service- and nonservice-related domains of life.

The measurement of psychocultural distance, and the mapping of changes produced in the process of adaptation have several practical implications. By measuring the distance, we can identify domains as well as important themes which are characterized by substantial differences. Once such areas have been localized appropriate institutional policies can be developed. Furthermore, human resource management, leadership and personnel training can be provided with information on where to concentrate efforts and how to approach such potential trouble spots.

Use of Findings

In line with the stated objectives, the results of the investigations have applicability in three main contexts: (a) personnel policies and manpower management, (b) leadership and organizational effectiveness training for American Naval personnel, and (c) special training for Filipino servicemen.

Personnel Policy and Manpower Management. Through its organization and experiences the Navy has an excellent potential to deal with personnel problems which involve command responsibilities and superior-subordinate relationships. Those in command position in high or low echelons can be effectively directed how to supervise and relate to subordinates. It is a similar widely accepted practice to prescribe to subordinates how to relate to their superiors.

Peer relations, which were found to be so critical in the present study, involve a less readily accessible dimension. There are several reasons for this. First of all, how a Navy man relates to his peers is considered to be his own personal business, especially in nonservice-related personal contacts. This policy has a long-standing tradition and strong roots in the belief in separation of private and service-related spheres of life. While this principle may still be timely and viable when applied to institutions with homogeneous personnel, it seems to require some modifications in relation to institutions whose personnel include people from different backgrounds and cultures. In such institutions peer relations deserve closer attention and interest as they are more likely to interfere with the cohesion and performance of the institution. The situation of the Filipinos in the Navy illustrates that while relationship to the command structure may be highly positive, at the same time peer relations could be poor. In the case of minority groups poor peer relations transcend the private, personal sphere. They are likely to have adverse effects, leading to racial tensions, low performance, poor organizational climate.

As has been recognized by the Human Goal Program, the increasing recruitment of minorities represents a pluralistic direction in organizational development, which requires a new approach in personnel management and leadership. As a part of this development, as a part of the strong awareness and concern for the needs of minority personnel, the Navy increasingly recognized the need to promote positive peer relations among Navy men of diverse racial and cultural backgrounds.

The present study clearly underscores this need. It also offers extensive data for education and training which can promote mutual understanding. The data show the actual needs, concerns, sensitivities, frames

of reference of Filipinos as well as Americans. Parallel to training, this information bears on the interest of management and leadership. The identification of priorities and concerns suggests ways in which service satisfaction and motivation can be effectively enhanced. For instance, in the case of the Filipino personnel, it is desirable to reduce social sensitivities and to satisfy needs for personal contacts and social recognition. The specific ways in which social recognition, self confidence, and esteem may be enhanced naturally depends on the context. In some instances it may be the wording of texts accompanying rewards; in other instances esteem may be promoted by elaborating on the social implication and value of performance. In other instances, it may be a question of the style of publicizing achievements, of identifying roles and functions, of stressing supervisory responsibilities, or of capitalizing on qualities and attributes which represent attractive dimensions of the self image. A most effective avenue for enhancing job satisfaction, promoting recognition, and improving peer relations will be the opening of new job ratings. Compared to past personnel policies, there has been a great improvement in this field and presently there are 64 ratings open to Filipinos. The heavy concentration of Filipinos in the food service related assignments is a situation inherited from the past, which calls for intensive measures that further increase job opportunities.

Training American Naval Personnel. As peer recognition represents a need which can be helped but not substituted by the behavior of superiors in command positions, to change the present situation requires that Navy men be trained for interacting effectively and positively with Filipinos. The information obtained here can be used to train American Navy men to recognize others' needs and to relate more positively to people in general. The desirability of this skill, and the benefits to be expected are not limited to the problem of the Filipinos; it relates to contacts among all groups recognized by cultural awareness and race relations programs within the Navy. Furthermore, it is relevant to interactions with foreigners overseas as pursued in overseas and cultural diplomacy programs.

The information obtained by the present study has potential value in these different programs at three main levels of utilization. At a general introductory level the information can be used to show cultural differences in their actual nature and proportions. In this respect the value of the information is in its potential to show the existence of intangible

differences in people's perceptions and subjective meanings which are frequently ignored because they are hidden. The data obtained in this study can document the existence and scope of such differences.

At a more specific level the information can be used to train American Navy men to be sensitive to the needs of the Filipinos. The information presented in this report represents only a small portion of the data obtained in various domains on American-Filipino cultural differences. If used in properly designed training, the data have a unique potential for promoting cultural understanding and interaction skills. The material helps to recognize salient concerns and priorities of the Filipinos and show how Filipinos conceptualize these priorities. The information makes it possible to relate to Filipinos in terms of their own priorities. The present investigations offer timely information in support of the systematic pursuit of such training objectives. The information available on Filipino personnel offer an opportunity to deal with human differences which were found to have articulate representation within the Navy, yet which are relatively free from the high emotional loading of race relations involving domestic minority groups.

Training Filipino Naval Personnel. The results of the present investigations indicate the desirability of two types of training programs to promote the cultural adaptation and integration of the Filipino Naval personnel into the U.S. Navy.

The first involves preparation of Filipinos for cultural adjustment and service in the U.S. Navy. This could take the form of a brief course given before or during basic training. It could have a title like: "Americans and Filipinos: Culture, Understanding, and Cooperation." Relying on information accumulated by the present study, complemented from other sources, the material can be organized into a training course, specifically designed to address those practical problems which directly bear on the successful adaptation, service satisfaction, and performance of the Filipinos.

With natural focus on social interaction, on the social frame of reference, the material of the training course should be helpful in introducing Filipinos to the American way of living, in explaining American social

behavior, and in preventing certain misinterpretations of American behavior based on wrong assumptions. It has to be made clear, for example, that the direct and informal style of Americans should not be interpreted as conveying unfriendly, hostile feelings. The attitude of not interfering with people's personal problems does not mean automatically a lack of personal interest or lack of sympathy for people in trouble. Clues conveying the impression of lack of personal interest should not be taken as indicators of ethnocentric attitudes or racial prejudice.

As a second program it is recommended that the Filipino Navy men receive intensive instruction in American English pronunciation. Although past experiences with similar efforts have not been particularly encouraging, the communication problems and their consequences are serious enough to justify further efforts. While habits of speech and pronunciation are deeply ingrained and hard to modify, the success or failure is less a function of the actual difficulty involved than of motivation. Experience has shown that speech and accent problems can be greatly improved if there is sufficient interest and motivation. As discussed elsewhere, there are several factors which interfere with the Filipinos' perception of the problem. They do not hear their accent in the same way that the Americans do. Furthermore, they do not fully recognize the social and intellectual implications of having an accent. They assume that Americans are impatient and avoid contacts with Filipinos merely as a pretext to cover their actual feelings of racism and prejudice. These kinds of assumptions detract from the Filipinos' motivation to practice English pronunciation, exercises which are tedious and which may appear humiliating. The present investigations have produced sufficient information, however, which if properly used, could increase their motivation to the level desired. A new and successful effort requires that the disadvantageous effects of having an accent be clearly identified in relation to social recognition, career advancement, and projected intellectual image. If the Filipinos recognize all the detrimental consequences of accents, it should be possible to count on their full participation.

THE STUDY

BACKGROUND

Filipino Naval personnel, numbering around 20,000, represent the second largest minority group in the Navy today. Personnel statistics of the Department of the Navy clearly indicate that foreign background as well as a variety of factors associated with foreign origin create for the Filipino group a situation which is not readily comparable to that of the American servicemen. The contemporary situation has strong roots in the history of Filipino recruitment.

Since its early beginning in 1901, the conditions for recruiting Filipinos have been regulated by several presidential orders and interstate agreements. For many decades the recruitment of Filipinos was used to meet the Navy's personnel needs in a few selected job categories, mainly in steward duties and food processing. During recent years the number of job categories has increased, and presently there are thirty ratings open to Philippine nationals. Although this represents a sizable broadening of job opportunities, several limitations remain.

The Human Goal Program of the Department of Navy is committed to the principles of racial equality and equal opportunity. The program aims at a better and more equitable use of human resources through a personnel management which is keenly aware of human needs shaped by different life conditions, upbringing, cultural background.

In the case of the Filipino Naval personnel equal employment is hampered by several factors such as the conditions of recruitment, legal status, and security regulations involving foreign nationals. These create a rather uncommon situation and underscore the unique position of the Filipino group within the U.S. Navy. Compared to domestic minorities, the Filipinos are unique in several ways. Since English is the language used in public education in the Philippines, the Filipino servicemen

have a relatively high English proficiency but their English pronunciation and style of speaking is quite different from the American speaker. The Filipinos are all volunteers, selected from a large number of competing applicants. The sizable difference between the U.S. and Filipino income levels lends a strong material incentive, but prestige and other less tangible factors enhance service motivation of Filipino personnel as well.

Originally Filipinos were recruited mainly for steward duty. Recently a broader variety of job categories or ratings were opened to them in order to meet their aspirations which have naturally been raised by the climate of equal opportunity. The Filipinos have the reputation of being hard working, brave and friendly people. They are considered an asset to the service, a group which quietly performs their duties, causes little problem, and attracts little attention. Amidst the diverse groups and pressing problems of Navy life, the Filipinos have received little research interest in the past. The results of a recent Navy-wide Human Resources Management (HRM) Survey appeared to be conflicting and intriguing enough to bring attention to how little is known about this sizable and unique minority group.

The Human Resources Management Survey (1974) was organized to provide timely information for personnel management. In respect to the Filipino Naval personnel, the results of the survey suggested problems at two levels ---institutional management and interpersonal relations.

The HRM Survey indicated that Filipino personnel have a high level of satisfaction with the institution and command of the Navy, but the results were not free of ambiguities. First of all, it was not clear whether the approval expressed in response to direct questions could be accepted entirely at face value. Interviews with individual Filipinos suggested that parallel to strong motivation to serve in the U.S. Navy there are certain grievances and unsettled problems to which the Filipino personnel are sensitive. The opinions differ just how serious these grievances are. Some believe that they are serious, but the Filipinos are reluctant to express dissatisfaction for fear of alienating or disappointing those in command position.

The survey results were surprising on several points and have raised many questions about the actual attitudes and views of the Filipinos. In general, they promoted the realization that the Filipino Naval personnel have a frame of reference which is different from their American peers and that little is known about the Filipinos' culture and way of thinking.

Aiming at the clarification of the previous survey results and using a somewhat different approach, the present study was designed to provide indepth analysis of the Filipino cultural frame of reference. The attention was centered on Filipino perceptions and attitudes in areas which appeared particularly critical from the angle of their Naval service and adaptation to the American culture. Data were obtained on American and Filipino priorities, perceptions, and attitudes and used in the framework of a comparative analysis to identify important areas of cultural similarities and differences.

The investigations pursued three main objectives:

The first major objective was to provide personnel management with timely information on the psychocultural dispositions, perceptions, and attitudes of Filipino Naval personnel in comparison with Americans of comparable education and grade or rank. By focusing the inquiry on the salient concerns and cultural characteristics of the Filipino personnel, we hoped to clarify and complement the HRM Survey.

Second, we attempted to gather extensive cultural information in support of educational and training tasks, such as helping the Filipino understand the American culture and its relationship to his own as well as assisting American servicemen to better understand Filipinos and to communicate with them more effectively.

Finally, in order to understand the present situation in proper perspective, it was desirable to develop a sense for the actual parameters of the influence process. We compared Filipino groups with varying length of service to obtain timely information on the effects of the Naval experience on Filipino personnel, to determine how the time spent in the Navy changes their cultural dispositions, perceptions, attitudes and career motivation.

Parallel to a direct method of assessment using a questionnaire focused on various aspects of service satisfaction, communication problems, and interpersonal relations, the investigations relied heavily on an inferential research method specifically designed for the indepth assessment of psychocultural dispositions. This method, Associative Group Analysis (AGA), has been tested and evaluated during the last several years under ONR sponsorship in the context of other comparative studies involving Black, White and Spanish American groups (Szalay, Bryson 1972; Szalay, Bryson, West 1973,1974). Based on the analysis of spontaneous word associations of selected cultural or social groups, AGA provides a sensitive analytic instrument for the empirical assessment of the cultural frame of reference ---behavioral dispositions, attitudes, perceptions, meanings and beliefs. In a series of past investigations, the AGA method has provided valid empirical data on such diverse psychological variables as images and meanings (Szalay, Brent 1967), values (Szalay, Brent 1968), attitudes (Szalay, Moon 1971a,b), and belief systems (Szalay, Kelly 1972).

As an important characteristic, the AGA method is inferential. It can be used to assess perceptions and evaluations involving dispositions of which people are frequently not aware or are unable to formulate in response to direct logical questions. The method is used to identify major problem areas in which cultural differences are particularly sizable and important from the angle of communication and social interaction. By this procedure the Filipino and American groups can be compared not only in terms of specific themes but also in terms of broader domains, thereby allowing to pinpoint the critical areas of psychocultural differences. The findings of a study on designing cogent communications (Szalay, Lysne, Bryson 1972) indicate that the association-based data on culturally salient trends of interpretation, perceptions and evaluations help us to relate to a member of a foreign culture in his own terms. By relating better to his cultural understanding and to his cultural priorities, it is possible to make communication more meaningful and more acceptable.

DATA COLLECTION

In pursuit of the above objectives, data collection was organized into two main phases. The first phase served to identify broad problem domains and within domains specific themes which have high subjective importance for the culture groups studied. The tasks were designed to ensure that the salient priorities and concerns of both culture groups were equally represented in the main data collection. The first phase of data collection was completed in December of 1975 in Annapolis using 50 American and 50 Filipino servicemen of comparable age and rate (E-2 to E-9).

Once the important themes were identified, the second phase, the main data collection, was organized using two methods: Associative Group Analysis (AGA) and a questionnaire. AGA uses the responses obtained from sample groups in word association tasks to reconstruct their perceptions and evaluations, their subjective meanings of selected themes (see Appendix 2). In the data collection conducted in the second phase associations were elicited to 78 themes representing 14 domains identified in the first phase. The questionnaire covered four general subject areas: sociodemographic background, service life, communication, and interpersonal relations. The questionnaire included 40 questions; about 30 of the questions posed to Americans and Filipinos were the same, the remaining questions were different.

The second phase of the data collection was performed between April and June 1976 at three locations: Norfolk Naval Base, San Diego Naval Base, and the Naval Recruit Training Center in San Diego. Our plans called for testing 50 Americans and 100 Filipinos at each of these locations. As the number of Filipinos fell somewhat short, an additional testing was organized in Washington. The American and Filipino servicemen were tested in mixed groups. First, the word association task was administered, then the questionnaire. The administration of the association task is described in Appendix 2, along with the analytic measures.

CHARACTERISTICS OF THE SAMPLES

In the selection of respondents our objective was to enhance the comparability of our samples along such variables as age, education, and years of service. As the effects of Naval service on Filipino servicemen was an important dimension of our study, we tried to obtain major subsamples representing a wide range of service years and experience. Our original plans called for testing equal numbers of servicemen in three service categories: recently inducted recruits, servicemen with one to ten years of service, and servicemen with long service ranging from 11 to 25 years. Because of budget reductions and the limited availability of Naval personnel, the number of servicemen actually tested in each group was lower than originally planned and ranged between 50 and 100 (see Table 1).

TABLE 1
NUMBER OF AMERICAN AND FILIPINO SERVICEMEN TESTED

Group	Recruits	1-10 Years Service	11-25 years Service	Total
American	50	50	50	150
Filipino	81	86	100	267

The Filipino servicemen were generally older than the American servicemen tested in the comparable service categories (see Table 2). The age difference of the recruit samples is particularly sizable. This difference is consistent with recruitment statistics which show that the average age of Filipinos inducted in the U.S. Navy is higher than the average age of the American recruits.

TABLE 2
AVERAGE AGE OF RESPONDENTS

Group	Recruits	1-10 Years Service	11-25 Years Service
American	19.4	24.4	36.0
Filipino	24.2	28.9	37.7

As shown in Table 3 the average educational level of the Filipino servicemen was somewhat higher. The difference is fairly sizable in the case of the recruit samples with the Filipinos having nearly two years more education than the comparable American recruits.

TABLE 3
AVERAGE YEARS OF EDUCATION COMPLETED

Group	Recruits	1-10 Years Service	11-25 Years Service
American	12.1	12.5	12.0
Filipino	13.9	12.4	12.3

Additional background characteristics of the American and Filipino samples are compared in Tables 4, 5, and 6.

TABLE 4
MARITAL STATUS

Marital Status	Americans			Filipinos		
	Recruits	1-10 Years	11-25 Years	Recruits	1-10 Years	11-25 Years
Married	4	37	41	1	65	98
Single	45	8	6	80	19	1
Divorced	1	3	3	-	2	1
Total Number of Respondents	50	48	50	81	86	100

TABLE 5
RELIGION

Religion	Americans			Filipinos		
	Recruits	1-10 Years	11-25 Years	Recruits	1-10 Years	11-25 Years
Catholic	8	10	13	75	82	94
Protestant	26	31	25	5	3	5
None, other	16	9	12	1	1	1
Total Number of Respondents	50	50	50	81	86	100

TABLE 6
AVERAGE YEARS OF SERVICE

Group	Recruits	1-10 Years Service	11-25 Years Service
American	-	5.2	17.2
Filipino	-	7.2	15.9

In respect to the actual job assignment there were important differences between our Filipino and American samples. The large majority of Filipinos, except those in recruit training, are stewards, cooks, or clerks in the field of food storage or processing. In contrast, the Americans have a broad diversity of assignments in fields of communication, weaponry, aviation, maintenance, and administration. In view of these differences in assignments, it is difficult to offer a simple comparison. A comparative presentation by grade level is a simpler task. As the results shown in Table 7 indicate, the Filipino and American groups tested are generally comparable in respect to pay grade. The differences observed in the job assignments of the two groups are apparently not reflected in pay grades. On the other hand, having the same pay grade does not necessarily mean having the same level of prestige or desirability. Some of the responses obtained to open-ended questions indicate that a large percentage of the Filipinos would like to take jobs in mechanical engineering, maintenance,

and aviation, which are apparently considered to be more desirable, more prestigious. However, the heavy concentration of Filipinos in the less prestigious category of food processing and distribution does not mean that the Filipinos were thoroughly dissatisfied with their present job assignment, as will become apparent from the results presented later. A look at what Filipinos like and dislike about their job assignments reveals that their positive responses outnumber negative ones. Furthermore, the Filipinos generally mentioned more positive features about their job assignments than did the American servicemen.

TABLE 7
DISTRIBUTION OF AMERICAN AND FILIPINO RESPONDENTS
BY PAY GRADE

Pay Grade	Americans			Filipinos		
	Recruits	1-10 Years	11-25 Years	Recruits	1-10 Years	11-25 Years
1	27	-	-	72	-	-
2	4	2	-	4	-	-
3	16	5	-	3	3	-
4	-	12	-	-	35	-
5	-	23	7	-	43	41
6	-	6	23	-	4	33
7	-	-	17	-	1	21
8	-	-	1	-	-	1
9	-	-	1	-	-	-
Unspecified	3	2	1	2	-	4
Total Number of Respondents	50	50	50	81	86	100

PART I. SERVICE SATISFACTION

A major portion of the survey focused on assessing service satisfaction. How satisfied are Filipino Navy men with their jobs and with the evaluation of their job performance? To what extent do they feel self confident and prepared for better jobs and promotion? How do Filipinos feel about their chances to receive education and promotion, compared to their American shipmates? Aiming at an in-depth assessment of the Filipinos' frame of reference, an analysis of their spontaneous word associations shows how Filipinos perceive and evaluate selected themes and issues central to service performance: their image of the Navy, advancement, discrimination, etc.

As mentioned earlier, the HRM survey results suggested that Filipino Naval personnel were more satisfied with the Navy than any other minority, and on several questions their level of satisfaction was even greater than that of the White majority. This finding was somewhat surprising since by certain objective criteria (advancement, paygrade, officer/enlisted ratio), the Filipinos appear to be the most disadvantaged minority group within the Navy. One explanation offered was that Filipinos are not used to opinion surveys and may have been less than candid in expressing their true feelings.

The present study undertook the task of clarifying how Filipinos actually feel about the Naval service, including their work, their opportunities, their career. In addition to a variety of other less direct measures, we used a battery of questions asking about such specifics as work assignment, education, and advancement in the hopes of obtaining important mosaic elements of the global situation as viewed in the Filipinos' perspective.

The questionnaire included several job-related questions: what the job assignment was, what they liked and what they disliked about it, whether the job offered opportunities for using their skills, and whether they felt that their performance on the job was appreciated by their supervisors. To provide a meaningful baseline we asked the same questions of both Filipino and American servicemen at comparable grade levels.

THE JOB

A popular means of assessing job satisfaction is to ask whether the job provides an opportunity to use skills and qualifications acquired by the person. Table 8 shows how the American and Filipino groups responded to this question.

TABLE 8
OPPORTUNITY TO USE ACQUIRED SKILLS AND QUALIFICATIONS IN
PRESENT JOB ASSIGNMENT

Response	Percentage of Group Giving Response					
	Recruits		1-10 Years Service		11-25 Years Service	
	Amer.	Filip.	Amer.	Filip.	Amer.	Filip.
Yes	19	48	47	47	66	74
No	57	11	43	23	30	11
Uncertain	23	41	10	30	4	14
Total Percentage	99	100	100	100	100	99
Total Number of Respondents	47	61	49	87	50	98

The distribution of responses indicates that the Filipinos considered their job assignment to be generally more suited to their skills/qualifications than did the American servicemen. It is interesting to observe that the level of satisfaction shows a certain increase with the number of service years. This seems to be the function of career development in that the number of people who were originally uncertain how much their job corresponded to their skills decreased. The percentage of American servicemen who were negative and skeptical about their job similarly decreased with time. Whether these changes occurred because they reduced the level of their expectation cannot be decided based on the data available.

Approaching the question of service satisfaction from a different angle we asked each group whether they were satisfied with the personnel evaluation they had received from their superiors. The results shown in Table 9 indicate that the percentage of Filipinos satisfied with their personnel evaluation was consistently higher than that of the American servicemen. Furthermore, the feeling that the evaluation received from superiors corresponds to their actual skills and performance increased with the number of service years. While the proportion of servicemen expressing uncertainty is high for both recruit groups, it apparently decreases as the number of service years grows. A sizable percentage of the American servicemen (39%) with long service years felt that the evaluation did not reflect their actual skills and performance.

TABLE 9
DOES PERSONNEL EVALUATION REFLECT YOUR SKILLS AND
PERFORMANCE?

Response	Percentage of Group Giving Response					
	Recruits		1-10 Years Service		11-25 Years Service	
	Amer.	Filip.	Amer.	Filip.	Amer.	Filip.
Yes	22	36	34	46	47	66
No	35	17	38	22	39	23
Uncertain	43	47	28	32	14	11
Total Percentage	100	100	100	100	100	100
Total Number of Respondents	49	64	50	85	49	96

The results suggest that the Filipinos are generally more satisfied with the existing service conditions than native American servicemen are. This may lead one to assume that Filipinos are more satisfied with the status quo of their job situation because they feel unprepared for or perhaps less interested in advancement to higher positions requiring more skills and experience.

READINESS FOR ADVANCEMENT

To test whether they felt ready for advancement, we have asked this question: Are you qualified for advancement or reassignment?

TABLE 10
ARE YOU QUALIFIED FOR ADVANCEMENT OR REASSIGNMENT?

Response	Percentage of Group Giving Response					
	Recruits		1-10 Years Service		11-25 Years Service	
	Amer.	Filip.	Amer.	Filip.	Amer.	Filip.
Yes	46	34	63	71	79	90
No	37	21	22	18	17	7
Uncertain	16	45	41	38	17	26
Total Percentage	99	100	100	100	100	99
Total Number of Respondents	43	71	46	84	41	83

The results shown in Table 10 indicate that the relative proportion of Filipinos who feel qualified for advancement is about the same as the proportion of Americans. Moreover, the proportion of Filipinos who feel unqualified is lower in all three service categories than that of the American servicemen. This seems to indicate that the relatively higher service satisfaction of the Filipinos is not explicable by their feeling unqualified or unmotivated to advance in their jobs.

When asked whether they can acquire the knowledge and experience necessary for advancement, the majority of recruits, both Filipino and American, said yes (Table 11). With increasing service years this optimism seems to decrease somewhat. The percentage of American servicemen who felt they did not have the opportunity to get further education and the percentage of Filipino servicemen who were uncertain about their opportunities were somewhat higher in the groups with longer service. In general, however, Filipino and American servicemen are similarly optimistic.

TABLE 11
 AVAILABILITY OF KNOWLEDGE AND EXPERIENCE
 NECESSARY FOR ADVANCEMENT

Response	Percentage of Group Giving Response					
	Recruits		1-10 Years Service		11-25 Years Service	
	Amer.	Filip.	Amer.	Filip.	Amer.	Filip.
Yes	85	87	70	63	78	76
No	6	1	22	7	22	12
Uncertain	8	12	8	30	0	13
Total Percentage	99	100	100	100	100	100
Total Number of Respondents	47	76	50	83	46	95

There were indications that Filipinos feel their scores in the classification tests have put them at a disadvantage in terms of future schooling and advancement. Thus, both the Filipino and American servicemen were asked whether they felt they could now get higher scores in the classification tests. Their responses to this question were fairly similar (see Table 12). The Filipinos showed more optimism: the percentage of those responding affirmatively is higher, and the percentage of those who said that they would not improve is lower. These trends suggest that the Filipino respondents do not lack self confidence. They show a higher degree of optimism in respect to their future success, a success which depends mainly on their individual performance rather than on external conditions. When they do not depend on external circumstances, as the reactions here show, Filipinos are inclined to be at least as optimistic and self confident as their American born shipmates.

TABLE 12
PERCEIVED ABILITY TO IMPROVE INITIAL NAVY
CLASSIFICATION TEST SCORES

Response	Percentage of Group Giving Response					
	Recruits		1-10 Years Service		11-25 Years Service	
	Amer.	Filip.	Amer.	Filip.	Amer.	Filip.
Yes	67	80	78	71	74	83
No	14	2	8	1	12	1
Uncertain	19	17	14	28	14	16
Total Percentage	100	99	100	100	100	100
Total Number of Respondents	48	77	49	86	50	99

EQUAL OPPORTUNITY

In talking with experts and Filipino Navy men in the exploratory part of our study, the issue of educational opportunities surfaced as being of high priority. Therefore, we included several education-related questions in our inquiry.

When asked whether there was a Navy school relevant to their rating, 80-90% of the Filipino and American servicemen gave an affirmative answer (see Table 13). However, a following question, "Do you have access to this school?", produced more differential responses. The results in Table 14 indicate that nearly three-fourths of the American recruits feel that they have access to the right school, while only one-fourth of the Filipinos express similar confidence. The majority of the Filipino recruits (56%) are not sure. The percentage of American servicemen who believe they have access to the right school decreases with length of service, while the percentage of those who believe that they do not have access considerably increases. The percentage of Filipinos who believe they have access increased while the percentage of those who were uncertain decreased. As a result of these trends the percentage of Filipino and American servicemen who believe they have access to school is closely similar in the "long service" category.

TABLE 13

IS THERE A NAVY SCHOOL RELEVANT TO YOUR RATING?

Response	Percentage of Group Giving Response					
	Recruits		1-10 Years Service		11-25 Years Service	
	Amer.	Filip.	Amer.	Filip.	Amer.	Filip.
Yes	93	84	90	83	83	83
No	0	5	4	0	17	5
Uncertain	6	10	6	17	0	11
Total Percentage	99	99	100	100	100	99
Total Number of Respondents	46	77	50	83	48	96

TABLE 14

DO YOU HAVE ACCESS TO NAVY SCHOOL RELEVANT TO YOUR RATING?

Response	Percentage of Group Giving Response					
	Recruits		1-10 Years Service		11-25 Years Service	
	Amer.	Filip.	Amer.	Filip.	Amer.	Filip.
Yes	73	29	53	37	55	52
No	8	14	42	13	40	18
Uncertain	18	56	5	50	5	29
Total Percentage	99	99	100	100	100	99
Total Number of Respondents	49	73	43	81	40	97

Asking the servicemen whether or not they would anticipate any problems in being able to attend the school if they met the score requirements is a question which deals with dimensions of advancement that depend on external conditions beyond the individual's control. As the results in Table 15 indicate, the Filipino respondents showed less optimism in this regard than the American servicemen. In all three service categories there was a larger percentage of Filipinos who said they were uncertain or definitely anticipated problems.

TABLE 15

FURTHER PROBLEMS IN BEING ABLE TO ATTEND THE SCHOOL?

Response	Percentage of Group Giving Response					
	Recruits		1-10 Years Service		11-25 Years Service	
	Amer.	Filip.	Amer.	Filip.	Amer.	Filip.
Yes	11	18	19	13	16	11
No	74	53	62	43	80	48
Uncertain	15	28	19	43	4	41
Total Percentage	100	99	100	99	100	100
Total Number of Respondents	46	75	48	92	44	91

From the angle of their service satisfaction, it is naturally of central importance whether Filipinos believe they have the same chances and opportunities for getting ahead as their American shipmates. The opinion of our respondents to this question is shown in Table 16. The Filipinos had considerable doubts in this respect. There is a larger percentage of Filipino than American servicemen who feel that they do not have the same chances or that they are uncertain whether they have the same chances as their American shipmates.

Beyond these differences between Americans and Filipinos, there are also differences in opinions influenced apparently by service experiences. Compared to those with fewer years of service, more of the American servicemen with long experience feel they have the same opportunities as their shipmates. In the case of the Filipinos the years of experience have somewhat less influence, although the Filipinos with long service are more inclined than the recruits to believe they have the same chances for advancement.

TABLE 16
SAME CHANCES FOR TRAINING AND ADVANCEMENT AS
SHIPMATES?

Response	Percentage of Group Giving Response					
	Recruits		1-10 Years Service		11-25 Years Service	
	Amer.	Filip.	Amer.	Filip.	Amer.	Filip.
Yes	76	47	68	51	92	60
No	15	18	24	19	6	23
Uncertain	4	35	8	30	1	17
Total Percentage	100	100	100	100	99	100
Total Number of Respondents	46	79	50	86	50	96

The general picture emerging from the reactions of our respondents to questions dealing with service shows a certain amount of coherence and internal consistency. The Filipinos appear to be more satisfied with their jobs, at least in respect to their skills and experiences. Compared to the Americans, the Filipino servicemen are more inclined to feel that the evaluation they receive from their superiors corresponds to their skills and performance.

At the same time, a greater percentage of Filipinos feel they qualify for advancement and reassignment. In respect to the availability of

schools necessary for career advancement Americans and Filipinos are equally optimistic, but the Filipinos express considerably more doubts and uncertainty that they will actually be able to attend. Most Filipinos also believe that they could improve their scores if allowed to take the Navy classification tests again. Thus, it is not particularly surprising that a substantially larger percentage of our Filipino respondents felt that they do not have the same opportunities for receiving the desired training and advancement enjoyed by their shipmates. In respect to their educational and career opportunities, the Filipino servicemen express markedly more skepticism and uncertainty than their American shipmates. And yet they show a distinctly higher satisfaction with service life, are more positive about their present job assignment, and show more approval of their personnel evaluation. That this satisfaction is not a matter of less capability or ambition or lack of self confidence is suggested by the high percentage who feel qualified for promotion and the high percentage who believe they could improve their classification scores. Filipino servicemen are apparently satisfied with their jobs even though they feel they do not have the same chances for advancement as their American shipmates. The Filipino Naval personnel approach service with a frame of reference which is apparently different from that of the Americans.

IMAGE OF THE NAVY, THE MEANING OF SERVICE

To explore the frame of reference of the Filipino group in greater depth, the following analysis was focused on images and meanings which can reveal how Filipinos view and evaluate their service in the U.S. Navy.

The following results were obtained through the Associative Group Analysis, a method which uses word associations to reconstruct the groups' subjective images and meanings. As described in more detail in Appendix 2, associations produced in continuous free word association tasks offer insights into each group's characteristic images and meanings in terms of salient perceptual and attitudinal components. The following eight figures present the American and Filipino groups' understanding of: NAVY, SERVICE. JOB, PAY, ADVANCEMENT, EDUCATION, DISCRIMINATION, and CAREER.

The words in small print in the following tables show responses with the scores these responses have accumulated from the members of the U.S. (US) and Filipino (F) groups. The scores are weighted frequencies (Appendix 2). The higher the score, the greater is the importance of the response to a particular group. The words in caps are used to identify clusters of related responses which suggest main components of meaning, main components of subjective perception and evaluation. To simplify the reading of the results, the components emphasized more strongly by the U.S. group are presented on the left side of the page, while the components which are more salient for the Filipino group are presented on the right. In the center of the table the percentage values of the main components are presented. They show the relative importance of the component for the U.S. and Filipino groups. In this presentation the three subsamples representing service experiences of various length are combined. Parallel to each table a brief summary is given which recapitulates the cultural trends observed.

NAVY

MAIN COMPONENTS OF PERCEPTION AND EVALUATION BY AMERICAN AND FILIPINO GROUPS

	US	F
JOB, CAREER, WORK	691	454
job	238	74
career	212	159
profession	16	37
work	121	58
rate, ing	11	19
duty, shore-	25	35
responsibility	-	18
opportunity	9	26
advancement	21	15
retirement	38	13
SHIP, AIRPLANE	361	318
ship	317	256
aircraft	15	-
airplanes, planes	23	34
carrier	6	25
MONEY, PAY	134	77
money	99	42
pay, good	35	35
GOOD, FUN	139	86
good	46	57
fun	25	6
love	16	-
pride	15	5
benefits	37	18
EDUCATION, TRAINING	144	82
education	35	19
school	21	4
training	20	15
boot camp	33	8
experience	-	11
travel	35	25
BAD	62	8
bad	22	8
bullshit	12	-
sucks	28	-
JOB, CAREER, WORK	US	F
military	235	359
armed forces	48	71
army	27	4
USN	6	16
defense	19	22
security	74	33
force	-	18
protector	-	12
power, ful	6	43
seapower	-	18
service	42	52
organization	-	30
base	13	3
SAILOR, OFFICER	106	215
sailor	53	143
officer	23	40
admiral	-	12
uniform	30	20
SEA, WATER	163	162
sea, going	97	110
ocean	8	15
waves	11	18
water	35	9
shore	12	10
PEOPLE, MEN	127	127
man, men	46	70
women	-	11
people	44	25
blacks	-	11
me	19	-
family	18	10
U.S., JAPANESE, RUSSIAN	18	107
U.S.	18	55
American	-	21
Japanese	-	13
Russian	-	18
U.S., JAPANESE, RUSSIAN	18	107
U.S.	18	55
American	-	21
Japanese	-	13
Russian	-	18
MISCELLANEOUS	98	92
short	12	-
time	13	3
future	-	12
life	56	39
big	-	13
blue	17	14
food	-	11
TOTAL SCORE	US = 2278	
	F = 2087	

Figure 1

NAVY

"Job, Career, Work" is the strongest meaning component in both groups' image of the Navy; however, its salience is substantially greater for the American group. The Americans also place more emphasis on the financial aspect of military service ("Money, Pay") and make slightly more references to education and training. The "Good, Fun" and "Bad" components, reflecting positive and negative emotional reactions to the Navy, are both stronger from the American servicemen whereas the Filipinos appear to be less evaluative in their orientation. The lack of negative reactions from the Filipinos also suggests lack of ambivalence toward the Navy. A look at the "Sailor, Officer" component indicates that the Filipino servicemen pay stronger attention to rank and show a greater awareness of the military hierarchy, of subordination and superordination. There is a stronger Filipino emphasis on the military functions and mission of the Navy. Although the difference is not large, this contrasts with the more civilian, professional American orientation suggested by the components "Work" and "Pay". The Filipinos also show a greater awareness of the international aspects and implications of Naval service.

SERVICE

MAIN COMPONENTS OF PERCEPTION AND EVALUATION

BY AMERICAN AND FILIPINO GROUPS

	US	F		US%	F%		US	F
NAVY, ARMY	1281	518				JOB, WORK	177	255
Navy, U.S.-	714	242				business	-	17
military	121	90				Job	77	89
Army	138	38				work	78	130
armed	15	7				career	22	19
armed force	-	20	NAVY, ARMY	57	28			
Air Force	98	26	STATION, CAR	10	6	GOOD, OUTSTANDING	64	224
Coast Guard	40	9	PEOPLE, MEN	5	7	good	50	137
Marines	82	24	BAD, POOR	1	2	good service	-	22
country	50	48	JOB, WORK	8	14	outstanding	-	18
uniform	11	14	GOOD, OUTSTANDING	3	12	special	14	47
retirement	12	-	HELP, AID	4	9			
			LONG, YEARS	1	5	HELP, AID	92	159
STATION, CAR	217	105	CHURCH, GOD	2	4	aid	-	18
repair	22	5	DUTY, RESPONSIBILITY	3	6	assist	13	6
station	166	54	MONEY, PAY	1	3	help	79	109
car	29	46	MISCELLANEOUS	4	5	serve	-	26
PEOPLE, MEN	109	131				LONG, YEARS	26	86
people	18	46				time	4	14
men	49	43				week	22	18
friends	4	12				year,s	-	24
family	12	20				long	-	30
self	26	10						
						CHURCH, GOD	11	66
BAD, POOR	26	43				church	3	46
bad	23	28				God	18	20
poor	3	15						
						DUTY, RESPONSIBILITY	79	108
MISCELLANEOUS	106	101				responsibility	3	15
waiter, tress	31	12				duty	38	75
security	17	8				obligation	19	16
school	3	20				dedication	19	2
need	13	4						
life	19	10				MONEY, PAY	33	50
government	3	14				money	25	24
food	14	20				pay	8	26
hard	6	13						

TOTAL SCORE

US = 2261

F = 1846

Figure 2

SERVICE

Over half of the American reactions are to military service, "Navy, Army," a job with a U.S. military organization. Although this component is also the strongest one for Filipinos, it is by no means equally predominant. As the majority of Filipino Navy men are stewards or cooks, occupations which involve a type of service more along the nonmilitary sense of the word, it is understandable that Filipinos place greater emphasis than do Americans on "Help, Aid" and "Job, Work." The Filipinos also show more concern about the quality of service ("Good, Outstanding" and "Bad, Poor") as well as length of service ("Long, Years"). There is a stronger Filipino emphasis on people and on certain characteristics--"Duty, Responsibility"--reflecting commitment. One other component on which the American groups score higher involves specialized mechanical service: "Car, Station."

JOB

MAIN COMPONENTS OF PERCEPTION AND EVALUATION BY AMERICAN AND FILIPINO GROUPS

	US	F		US	F
<u>MONEY, PAY</u>	427	212	<u>WORK, TASK</u>	471	526
money	321	134	work	443	444
income	34	12	labor	8	13
salary	-	22	task	20	40
pay	72	44	employment	-	17
			assignment	-	12
<u>NAVY, SERVICE</u>	185	102	<u>CAREER, OCCUPATION</u>	196	304
Navy	182	78	career	80	31
service	3	24	profession	42	47
			occupation	24	48
<u>SECURITY, NEEDED</u>	186	76	business	11	16
security	128	65	carpenter	-	17
necessary	20	-	cooking	-	32
needed	38	11	driver	-	14
			electrician	11	15
<u>PEOPLE, BOSS, FRIENDS</u>	99	36	mechanic	-	25
people	35	18	white collar	-	20
friends	29	4	position	23	25
boss	35	14	rating	5	14
<u>BAD, BORING</u>	74	34	<u>GOOD, FUN</u>	143	158
bad	18	14	good	43	94
boring	37	3	fun	38	-
dirty	-	13	like	46	8
hate	19	4	nice	1	16
			happiness	15	24
<u>FAMILY, HOME</u>	43	16	satisfaction	-	16
family	23	9			
home	20	7			
<u>MISCELLANEOUS</u>	99	81	<u>EASY, HARD</u>	54	132
office	11	20	easy	9	50
food	12	10	hard	45	82
car	22	14			
life, living	8	33	<u>DUTY, RESPONSIBILITY</u>	65	106
retire	13	-	duty, less	22	54
time	33	4	obligation	12	12
			responsibility	31	40
			<u>EDUCATION, TRAINING</u>	24	57
			education	9	12
			training	8	17
			knowledge	7	14
			skill	-	14
			<u>OPPORTUNITY, ADVANCEMENT</u>	35	55
			advancement	14	5
			opportunity	9	40
			future	12	10

TOTAL SCORE

US = 2101

F = 1895

Figure 3

JOB

Practically all the cultural trends observed on JOB were also observed in the context of the stimulus WORK. The close synonymity of these two concepts is reflected here by the strongest component "Work, Task." In the "Career, Occupation" component the Filipinos mention several specific jobs--cook, driver, mechanic, electrician--in which they are involved or have a particular interest. The Americans speak more of career in general. Filipinos place slightly more emphasis on "Education, Training." As in the case of SERVICE, as well as WORK, the Filipinos show a stronger awareness of duty and responsibility in relation to JOB. There is also consistently more Filipino preoccupation with the job's level of difficulty. However, references to easy are almost as numerous as those to hard, but the potential difficulty of a particular job apparently represents an important consideration in the Filipino frame of reference.

The American emphasis on "Money, Pay" is about twice as strong as the Filipino. The American groups also show a closer association of JOB with the Navy, their stronger emphasis on the Navy was found in the context of other themes such as WORK and CAREER as well. These observations are also consistent with the Americans' image of the Navy, in which job and pay were predominant components. The security dimension of a job also appears to be very important to the Americans. Although both groups are about equal in their positive reactions ("Good, Fun"), the Americans appear to be more critical, describing a job as "Bad, Boring." This observation supports the questionnaire data which show that Filipinos are more satisfied with their jobs than their American shipmates.

PAY

MAIN COMPONENTS OF PERCEPTION AND EVALUATION BY AMERICAN AND FILIPINO GROUPS

MONEY, DOLLARS	US	F
money	643	549
dollars	592	442
cash	31	39
bank	20	32
		36

JOB, NAVY	US	F
job	337	234
work	81	60
earn,ing	92	60
Navy	83	39
grade	42	17
rate	-	24
scale	15	9
basic	24	5
	-	20
DAY	200	64

SPEND, BUY, SAVE	US	F
spend,ing	196	112
save,ing	85	40
buy,ing	51	34
give	38	18
	22	20

RENT, FOOD, CLOTHES	US	F
rent	177	133
home	25	23
house	31	9
food	-	21
clothes,ing	53	32
car	14	12
family	29	28
	25	8

SECURITY, NEEDED	US	F
security	96	41
necessary	54	14
need,ed	16	11
	26	16

MONEY, DOLLARS	US%	F%
	28	26

JOB, NAVY	US%	F%
	14	11
DAY	9	3

SPEND, BUY, SAVE	US%	F%
	8	5

RENT, FOOD, CLOTHES	US%	F%
	8	6

SECURITY, NEEDED	US%	F%
	4	2

SALARY, PAYCHECK	US%	F%
	11	18

BILLS, DEBT	US%	F%
	11	11

GOOD, HIGH	US%	F%
	-	6

RAISE, MORE	US%	F%
	2	5

LOW, NOT ENOUGH	US%	F%
	2	3

MISCELLANEOUS	US%	F%
	3	3

TOTAL SCORE	US	F
	231	2120

SALARY, PAYCHECK	US	F
salary	73	390
wages	19	26
income	19	22
check	99	121
allowance	15	45
compensation	-	14
reward	21	10

BILLS, DEBT	US	F
bills	245	237
loan	171	86
debt	9	14
payment	50	70
credit	-	17
taxes	-	16
return	15	16
	-	18

GOOD, HIGH	US	F
good	12	118
enough	12	68
high	-	14
	-	36

RAISE, MORE	US	F
raise	51	101
increase	28	26
more	-	13
advance,ment	23	34
	-	28

LOW, NOT ENOUGH	US	F
low	42	72
small	-	40
not enough	12	26
	30	6

MISCELLANEOUS	US	F
life	70	69
record	19	10
me	18	16
happiness	13	5
bayard	8	22
time	-	12
	12	4

Figure 4

PAY

The cultural trends observed here in the context of PAY are very similar to those observed in the analysis of the theme MONEY. "Money, Dollars," the main instrument of financial reward, is naturally the most salient meaning component for both groups. The American emphasis here is somewhat greater, as it is in other contexts dealing with work, job, Navy, etc. Conventional forms of payment, "Salary, Paycheck," are emphasized more by the Filipinos.

General financial transactions ("Spend, Buy, Save") as well as specific ways of using money ("Rent, Food, Clothes") are mentioned more by the American servicemen. Both groups appear to be quite concerned with "Bills, Debt," with their unmet financial obligations.

The Filipinos seem to be especially interested in the amount of payment received. They score substantially higher on "Good, High," reactions expressing satisfaction, as well as on "Low, Not Enough" and "Raise, More," expressing shortage and dissatisfaction. For the American servicemen PAY is more closely related to "Job, Navy." This finding is consistent with previous observations which have shown that for Americans work, job, and career are more closely related to their idea of Naval service and all these had a particularly salient American component involving pay and money.

ADVANCEMENT

MAIN COMPONENTS OF PERCEPTION AND EVALUATION
BY AMERICAN AND FILIPINO GROUPS

	US	F
MONEY, PAY	419	141
money	264	65
pay	109	56
raise	46	20
EDUCATION, STUDY	222	197
education	34	36
college	12	4
school	16	12
study	88	50
examination	12	30
test	15	17
training	3	14
RATE, RANK	229	159
rank	34	23
rate, ing	184	99
position	11	23
grade	-	14
JOB, CAREER, NAVY	212	151
job	34	42
work	87	43
career	17	20
business	-	17
Navy	54	24
AUTHORITY, RESPONSIBILITY	142	104
chief	28	10
authority	37	36
responsibility	77	58
MISCELLANEOUS	77	40
ceremony	12	3
ability	-	14
life	17	11
security	28	8
time	20	4
PROMOTION, OPPORTUNITY	210	356
better	27	5
improvement	9	24
progress	25	20
raise	46	20
accomplishment	-	20
achievement	7	18
promotion	113	229
opportunity	29	40
FORWARD, HIGHER	176	210
advance	-	12
ahead	39	21
forward	38	57
up	32	14
high, or	50	84
move	37	-
increase	-	22
PRIDE, PRESTIGE	63	133
success	-	18
honor	-	16
respect	-	14
pride	20	34
prestige	43	36
award	-	15
HARD, SLOW	71	84
hard	30	24
slow	18	32
bad	23	28
GOOD, HAPPY	38	95
good	34	62
happiness	4	33
EASY, FAST	-	47
easy	-	19
fast	-	28

TOTAL SCORE

US = 1859

F = 1717

Figure 5

ADVANCEMENT

Americans think of ADVANCEMENT mainly in terms of "Money, Pay". This component is almost three times larger than the Filipino one (Americans 23%, Filipinos 8%). Both groups give about equal attention to the importance of "Education" as necessary for advancement. The references to "Rate, Rank" have status implications, although the largest American response rate reflects primarily on job assignment. References to "Job, Career, Navy" are also more numerous from the American groups. The Americans recognize that advancement means in addition to more money also more responsibility.

The strongest component for the Filipino groups emphasizes "Promotion" as the central idea of ADVANCEMENT. Emphasis on social priorities is also suggested by the component "Forward, Higher," which implies assuming a higher position. Here again the social status difference seems to be in the center of interest for the Filipino groups. Similarly, the Filipinos show a stronger concern with "Pride, Prestige," the social recognition accompanying higher positions. The Filipinos also express a greater awareness of the amount of difficulty and time involved in advancement. The results suggest that to the Filipinos the difficulties appear greater and the time longer.

EDUCATION

MAIN COMPONENTS OF PERCEPTION AND EVALUATION BY AMERICAN AND FILIPINO GROUPS

	US	F
<u>SCHOOL, COLLEGE</u>	878	570
school	442	231
college	289	184
elementary	17	40
high school	87	86
training	43	29
<u>DEGREE, DIPLOMA</u>	309	154
doctor	-	18
degree	268	136
diploma	41	-
<u>GOOD, IMPORTANT, NEEDED</u>	239	114
good	71	64
fun	17	2
help	14	5
important	30	16
need, ed	74	8
necessary	33	5
necessity	-	14
<u>TEACHING</u>	142	63
teach, ing	50	28
teacher	92	35
<u>LIFE, EXPERIENCE</u>	89	25
life	43	15
experience	23	4
time	23	6
<u>MISCELLANEOUS</u>	57	69
people	16	7
children	12	16
poor	12	20
hard	17	8
physical	-	18

	US%	F%
SCHOOL, COLLEGE	36	26
DEGREE, DIPLOMA	12	7
GOOD, IMPORTANT, NEEDED	10	5
TEACHING	6	3
LIFE, EXPERIENCE	4	1
LEARNING, KNOWLEDGE	16	27
PROFESSION, CAREER	7	11
GOAL, ACHIEVEMENT	4	8
LEVEL, HIGH, LOW	1	6
SMART, TALENTED	2	2
MISCELLANEOUS	2	3

TOTAL SCORE	
US = 2465	
F = 2169	

	US	F
<u>LEARNING, KNOWLEDGE</u>	405	577
learn, ed, ing	138	186
study	48	76
read, ing	7	31
books	72	56
writing	-	13
knowledge	130	197
understanding	10	18
<u>PROFESSION, CAREER</u>	179	242
profession	-	70
career	5	43
Navy	27	8
work	21	14
job	64	50
money	62	57
<u>GOAL, ACHIEVEMENT</u>	92	184
achievement	-	14
attainment	-	43
goal	-	22
success	9	21
future	13	36
advancement	46	32
opportunity	24	16
<u>LEVEL, HIGH, LOW</u>	20	133
high, er	14	95
low	-	20
level	6	18
<u>SMART, TALENTED</u>	55	38
smart	49	4
skill	-	20
talent	6	14

Figure 6

EDUCATION

Different types of educational institutions and references to learning and knowledge are the two most salient components of EDUCATION. The Americans place greater emphasis on schools while the Filipinos focus on the learning aspect.

As observed in the context of CAREER, Filipinos show a particularly high regard for education in acquiring a profession. Americans view education more in the context of obtaining a job or work. The Filipinos also gave more references to "Goal, Achievement," indicating the importance of education as an instrument toward advancement and success. Many of these components support the idea that Filipinos view education in terms of its instrumentality: learning a profession, attaining life goals.

There are numerous predominantly American reactions conveying the importance of EDUCATION for its own sake. The "Good, Important, Needed" component emphasizes the desirability of obtaining an education. The Filipino groups show a general concern with the level of education, while the American groups make more specific references to obtaining a degree or diploma. The American emphasis on "Teaching" shows a concern with giving as well as receiving knowledge.

DISCRIMINATION

MAIN COMPONENTS OF PERCEPTION AND EVALUATION

BY AMERICAN AND FILIPINO GROUPS

RACE, COLOR	US	F
race	583	557
racist, ist, ism	64	68
color	62	85
black, s	27	85
brown	257	151
white, s	6	25
	167	143

BAD, HATE, WRONG	US	F
hate, red, ful	429	361
bad	74	76
no good	101	133
dislike	-	18
against	12	28
dumb	36	32
ignorant	12	-
stupid	18	-
unfair	26	-
wrong	88	54
unequal	52	-
	10	20

JOB, NAVY	US	F
job	102	69
Navy	64	24
work	13	20
	25	25

SEX, RELIGION	US	F
sex	59	43
religion	46	31
	13	12

PEOPLE	US	F
people	132	164
American	90	73
me	-	29
Filipinos	24	7
minorities	7	26
	11	29

PREJUDICE, BIAS	US	F
prejudice	85	143
bias	73	106
bigotry	-	22
misunderstand	12	-
	-	15

SEGREGATION, SEPARATION	US	F
segregation	37	96
separate, ion	10	32
bussing	15	64
	12	-

WAR, RIOTS	US	F
war	-	58
riots	-	22
trouble	-	18
	-	18

MISCELLANEOUS	US	F
life	55	66
South	34	4
good	-	18
equality	6	14
feelings	-	22
	15	8

TOTAL SCORE

US = 1482

F = 1557

Figure 7

DISCRIMINATION

The racial dimension is uppermost in the minds of both cultural groups. Although the Black-White context is the most outstanding, the Filipinos also speak of color and brown, a direct reference to themselves. They apparently perceive themselves as being discriminated against but not to the extent that Blacks are. In addition to racial references, responses in the "People" category indicate discrimination based on national/cultural background, and there are a few references by both groups to sex and religion.

Reactions in the "Bad, Hate, Wrong" component are especially strong from the American servicemen. It is interesting to note that the Filipinos, who feel discriminated against, are not more vocal in their condemnation. They are stronger in emphasizing the prejudice and bias involved in discrimination. In the small predominantly Filipino component "Segregation, Separation," there are more references to separation than to the more common term segregation. Separation conveys more the idea of poor or strained social relations rather than an active premeditated large-scale social differentiation.

CAREER

MAIN COMPONENTS OF PERCEPTION AND EVALUATION

BY AMERICAN AND FILIPINO GROUPS

	US	F
NAVY, MILITARY	520	334
military	22	10
Navy,al	465	282
Army	13	13
service	20	29
JOB, WORK	456	330
job	319	178
work	137	93
task	-	18
rating	-	19
responsibility	-	22
TIME, YEARS	323	152
20 years	13	6
time	21	12
long	23	8
lifetime	43	10
lifer	7	20
life	98	68
retirement	118	28
MONEY, PAY	137	56
money	124	47
pay	13	9
GOOD, HAPPY	84	61
good	37	38
like	13	5
enjoy	16	6
happiness	18	12
SECURITY	68	34

NAVY, MILITARY	US%	F%
JOB, WORK	25	17
TIME, YEARS	22	17
MONEY, PAY	16	8
GOOD, HAPPY	7	3
SECURITY	4	3
EDUCATION, KNOWLEDGE	3	2
PROFESSION, OCCUPATION	6	20
GOAL, OPPORTUNITY	6	11
DOCTOR, LAWYER	5	9
FAMILY, MAN	1	6
MISCELLANEOUS	2	3
	2	1

TOTAL SCORE	
US = 2058	
F = 1959	

	US	F
EDUCATION, KNOWLEDGE	121	390
education	36	77
school,ing	12	45
college	11	22
degree	3	68
course	-	32
knowledge	27	42
information	-	15
study,les	3	31
counselor	29	58
PROFESSION, OCCUPATION	118	216
occupation	20	34
profession	81	178
vocation	17	4
GOAL, OPPORTUNITY	113	190
goal	15	54
future	56	54
attainment	-	12
ambition	-	23
ahead	14	-
advancement	15	18
opportunity	13	29
DOCTOR, LAWYER	24	125
doctor	10	52
engineer,ing	-	26
lawyer	11	23
teacher	3	24
FAMILY, MAN	46	54
family	34	16
man	12	38
MISCELLANEOUS	48	17
civilian	20	2
designated	19	3
bad	9	12

Figure 8

CAREER

For the American groups "Job, Work" in general and "Navy, Military" in particular represent the most salient components, indicating that the American servicemen view a career mainly in terms of their own everyday work. This emphasis is consistent with our observations that NAVY and SERVICE are more predominantly job-related themes in the American frame of reference. Again the Americans' stronger concern with "Money, Pay" emerges here. There is also a stronger American emphasis on "Time, Years," particularly on retirement.

In contrast to the American interpretation which suggests that CAREER implies anybody's life path of work, the Filipino interpretation is more discriminate; as indicated by their emphasis on "Professions, Occupation, "Doctor, Lawyer," and on "Education" and "Goals," Filipinos apparently view CAREER more in the context of professional, academic occupations. That "Education, knowledge" is the strongest component gives additional support to this observation.

SOME CHARACTERISTICS OF THE FILIPINO FRAME OF REFERENCE

The results obtained by the questionnaire indicated some interesting differences in the frames of reference of American and Filipino servicemen. The analysis of the service-related themes was undertaken to gain some additional insights.

Beyond a broad general agreement between the American and Filipino groups, this analysis revealed certain characteristic differences in their interpretation of particular themes.

The Filipinos' image of the Navy includes more diverse military, international, and interpersonal components. SERVICE means for them more emphatically providing services, serving people. JOB implies primarily such occupations as cook, mechanic or driver; PAY implies salary, paycheck, which they characterize both as "good" and "not enough." ADVANCEMENT means promotion, moving up, more honor, more pride. EDUCATION implies learning, knowledge, and more attention is given to its instrumentality in the attainment of goals, career, profession. DISCRIMINATION is strongly associated with prejudice, segregation and separation. It is interesting to note that the Filipinos show more apparent concern with the Black-White relationship, while relatively fewer references are made to their own race: Brown, Filipino.

In the foregoing analysis differences in service time were not taken into consideration. A later analysis of the groups with different lengths of service will show that the above American-Filipino differences are more distinct at the beginning of their service time. These differences tend to diminish apparently as a consequence of the American cultural influences. During their years of service, the Filipinos undergo a process of acculturation, that is, they become more similar in their perceptions and evaluations to the American-born service groups. For instance, Filipinos with long service experience tend to see a closer connection between Navy and job, in line with the stronger American emphasis on the tangible, material dimensions of the Naval service---job, pay.

The present comparison of Americans and Filipinos relies naturally on Filipino groups some of which have been exposed over many years to American cultural influences. These influences dim naturally the clarity

of the present data in conveying cultural differences in their actual proportions. Yet in several dimensions the cultural differences are large enough to be distinctly identifiable.

For instance, we can take a look at the total scores that each theme accumulated from the number of responses elicited. As will be described in more detail later, this figure, which is called a "dominance score", is an empirical indication of the importance of the theme as perceived by the responding group. The dominance scores show quite consistent differences in the cultural priorities. Seven of the eight service-related themes analyzed (the exception being DISCRIMINATION) have higher dominance scores for the American than for the Filipino group. As a counterpart of this observation, the Filipinos show consistently higher dominance scores on themes dealing with interpersonal relations, as presented in the next section.

The analyses of individual themes show a certain degree of consistency in trends of interpretation. This consistency indicates that the observations do not reflect some sort of whimsical differences in single word meanings, but reveal more generic trends characteristic of the groups' broader concerns, priorities, and interests.

For instance, not only the theme NAVY elicits more references to job, work, money, and pay from the American group, but these connections turn out to be also stronger when approached from the opposite direction. WORK and JOB elicit more references to money and pay and in turn MONEY and PAY show stronger connections with job and work. Further, the themes JOB, WORK, MONEY and PAY all show a consistently stronger relationship to NAVY. Compared to this stronger American job-money emphasis, the Filipinos show stronger preoccupation with certain social implications and consequences. In some contexts, such as NAVY, SERVICE, JOB, WORK---duty and responsibility receive consistently stronger attention from the Filipinos. In other contexts, such as ADVANCEMENT, PAY, EDUCATION and CAREER---prestige, pride, position and social recognition appear to be important considerations.

Such observations are fairly consistent, indicating that although Naval service constitutes a salient domain for both culture groups, their orientation toward service shows some characteristic differences.

PART II. COMMUNICATION AND INTERPERSONAL RELATIONS

The questions examined here bear on various little known or ambiguous dimensions of the Filipinos' social integration and adaptation. What is the relationship of Filipinos to their social environment in the Navy? How good is their English? What are the main obstacles to effective communication? How do Filipinos relate to their peers? What are their attitudes toward superiors? Answers to these kinds of questions help to clarify some of the contradictions observed in Filipino attitudes. As prior observations suggest, it is desirable to know what the Filipinos' expectations are in the realm of interpersonal and social relations. How far are these expectations met or frustrated? Can their verbal statements expressing positive attitudes, high level of satisfaction, be taken at their face value? Communication acquires special importance in view of its potential in promoting positive ties with the environment.

From our preliminary inquiries with panel groups and experts it became evident that a sizable proportion of the problems in the adaptation of Filipinos to the U.S. Navy and to the American social environment in general involves communication.

The problems in communication facing Filipino servicemen appear to be in many ways unique and consequential. The majority of immigrants who come to this country speak a different language, and thus learning English represents for them the most critical communication problem. In the Philippines, however, the public education system is based on the use of English; it is the main language of communication in public schools. Despite their good background in English, Filipinos do have certain problems in using the language in the U.S. environment. Compared to their proficiency the problem of pronunciation appears to be modest, but its negative consequences in communication and social interaction are much more serious. Actually, the Filipino case offers an interesting opportunity for exploring the relationship between language and communication problems and their effects on the process of cultural and institutional adaptation in a real-life setting.

We were interested in exploring the relationship between the Filipinos' use of English and of their native tongue in the American social environment. The most frequent dialects used by our Filipino respondents were Tagalog, Iloco, and Pangasinan. Other dialects mentioned by a few respondents were Zambal, Cebuano, Visayan, Waray, and Kinaray. The single most frequently used dialect is Tagalog. Those who spoke of Filipino language actually meant Tagalog. The rich variety of existing dialects explains why the Filipino government decided to use English as the official language for education and administration.

THE USE OF ENGLISH AND THE NATIVE TONGUE

Identifying the native tongue is less important than knowing the extent to which Filipinos use a language other than English in a primarily American environment. In separate questions we asked about their use of their native language in respect to English. As the results in Table 17 indicate, about 50-55% of the Filipinos report frequent or almost exclusive use of their native dialect. It is somewhat surprising that the number of years spent in the American environment shows little apparent effects on the use of the native tongue. The assumption that longer time in the U.S. would result in a shift from dominant use of the native language to dominant use of the host language is not supported by these results.

TABLE 17
DAILY USE OF NATIVE TONGUE BY FILIPINOS

Extent of use	Percentage of Group Giving Response		
	Recruits	1-10 Years Service	11-25 Years Service
Practically all	19	10	7
Frequent	36	42	44
Some	30	28	28
Little	14	19	21
Total Percentage	100	100	100
Total Number of Respondents	77	85	86

When asked about their average daily use of English, the Filipinos responded in much the same way as to the previous question about the use of their native tongue (see Table 18). However, here the length of service shows a direct relationship to the use of English. While Filipinos did not seem to use their native tongue less as a result of longer stay in the U.S. environment, in connection with the use of English it is clear that Filipinos with longest service use English the most, while the recruits with the least time in the U.S. environment use English the least.

TABLE 18
DAILY USE OF ENGLISH BY FILIPINOS

Average Daily Use of English	Percentage of Group Giving Response		
	Recruits	1-10 Years Service	11-25 Years Service
Practically all	5	5	19
Frequent	49	61	70
Some	42	27	8
Little	4	7	3
Total Percentage	100	100	100
Total Number of Respondents	76	84	100

EFFICIENCY IN ENGLISH SPOKEN AND WRITTEN

To explore how Filipinos evaluate their proficiency in spoken English three questions were used. The first question aimed at their judgment of their own capability. The second asked about the performance of Filipinos in general. This comparison served to show whether Filipinos tend to underestimate or overestimate their own performance in relationship to that of other Filipinos. The third question was used to determine how Filipinos evaluate their own written English. It provided an opportunity to compare subjective judgments with regard to written and oral performance.

Table 19 shows that a majority, that is, 60-70%, of the Filipino servicemen evaluated their own performance in spoken English as "good" or "excellent". Those with long (11-25 years) service judged themselves as "excellent" to a somewhat greater extent than recruits did. Considering the wide-ranging differences in the length of service (from a month to 25 years), the effects of time on the self-evaluated improvement in English are relatively modest.

TABLE 19
OWN ABILITY TO EXPRESS IDEAS IN SPOKEN ENGLISH

Response	Percentage of Group Giving Response		
	Recruits	1-10 Years Service	11-25 Years Service
Excellent	6	5	18
Good	52	58	59
Fair	42	34	22
Poor	-	4	1
Total Percentage	100	101	100
Total Number of Respondents	77	85	100

The results in Table 20 indicate that about 50-57% of the Filipinos have described the oral English proficiency of Filipinos in general as "good" or "excellent". The other half of the Filipino samples evaluated the oral performance of Filipinos as "fair" or "poor". The overall evaluation is somewhat less positive than the evaluation Filipinos gave to their own performance. It is understandable that the group of Filipinos with long years of service consider their spoken English to be better than that of Filipinos in general.

TABLE 20
ABILITY OF FILIPINOS IN GENERAL TO EXPRESS THEIR
IDEAS IN SPOKEN ENGLISH

Response	Percentage of Group Giving Response		
	Recruits	1-10 Years Service	11-25 Years Service
Excellent	2	1	6
Good	52	52	51
Fair	40	42	36
Poor	5	5	7
Total Percentage	99	100	100
Total Number of Respondents	77	84	100

Table 21 shows how the Filipinos evaluated their own ability to express their ideas in written English. The three service groups responded fairly similarly. The total percentage of those who felt their ability was "good" or "excellent" was above 70% for all three groups. The difference between the evaluation of their own oral and written performance is relatively small.

Previous findings have indicated, however, that Filipinos are concerned about their accent and feel that it has a detrimental effect in their communications with Americans. Yet, here we observe that they evaluate their own written and oral English performance similarly positively. This finding may indicate that Filipinos do not consider their accent to be a significant factor in evaluating their English language abilities. From their angle, their pronunciation probably appears to be entirely normal, although they recognize that it often creates problems when speaking with their native American shipmates.

TABLE 21
OWN ABILITY TO EXPRESS IDEAS IN WRITTEN ENGLISH

Response	Percentage of Group Giving Response		
	Recruits	J Years Service	11-25 Years Service
Excellent	12	20	23
Good	70	64	51
Fair	18	15	25
Poor	-	-	1
Total Percentage	100	99	100
Total Number of Respondents	77	84	100

The Filipino servicemen were also asked to evaluate their proficiency in English in four main dimensions: vocabulary, grammar, pronunciation and writing. A comparison of the results in Table 22 indicates that the Filipinos evaluate their writing and vocabulary very positively, while they are least positive about their pronunciation. The trends observed across service years suggest that there is some perceived improvement in vocabulary and grammar, but no apparent improvement in pronunciation. In writing about 80% of the Filipinos evaluate themselves "good" or "excellent". In pronunciation about half place themselves in the better and half in the

poorer performance category. Considering that native English speakers as well as those learning English as a second language usually rate their performance in writing lower than their oral performance, the high self-rating on writing reflects an unusual trend. This in turn underscores the idea that the Filipinos appear to be substantially lower in self confidence in respect to their spoken English.

TABLE 22
OWN PROFICIENCY IN ENGLISH VOCABULARY, GRAMMAR, PRONUNCIATION,
AND WRITING AS PERCEIVED BY FILIPINO SAMPLES

	Vocabulary			Grammar			Pronunciation			Writing		
	Rec.	1-10 years	11-25 years	Rec.	1-10 years	11-25 years	Rec.	1-10 years	11-25 years	Rec.	1-10 years	11-25 years
Excellent	2	4	21	8	10	19	4	6	11	13	23	29
Good	59	62	52	49	55	50	48	40	43	67	60	45
Fair	38	33	26	43	33	28	43	47	42	19	17	24
Poor	-	1	1	-	2	2	5	7	3	1	-	2
Total Percentage	99	100	100	100	100	99	100	100	99	100	100	100
Total resp.	79	84	100	79	84	98	79	85	99	79	83	97

The American servicemen were also asked to rate their Filipino shipmates' proficiency in English. As the percentages shown in Table 23 indicate, there is a remarkable degree of similarity between the Filipino and American judgments, except that the Filipinos' own assessment tends to be somewhat more favorable. Consistent with the Filipino self-evaluation, the American servicemen judged Filipinos particularly favorably in respect to their English writing and vocabulary, and rated them lowest on their English pronunciation.

These assessments appear to be fairly similar across service years. In general, the recruit group tends to be somewhat more positive in its evaluation than the groups with longer service experience. Although it is possible that the groups with different amounts of service experience use somewhat different subjective points of reference in their evaluation of the Filipino language performance, there appears to be a correspondence in this respect with the Filipinos' own judgment as well. Neither the American nor the Filipino groups indicate a substantial improvement in Filipino language proficiency as a function of time--despite the long time span (0-25 years) examined. In this respect the comparison of the native American is naturally less informative as there is no evidence that American recruits made their judgments based on their experience with Filipino recruits, or that the American servicemen with long years of service made their judgments based on experience with Filipinos with comparable long service years.

TABLE 23

FILIPINOS' PROFICIENCY IN ENGLISH VOCABULARY, GRAMMAR,
PRONUNCIATION, AND WRITING AS PERCEIVED BY AMERICAN SHIPMATES

	Vocabulary			Grammar			Pronunciation			Writing		
	Rec.	1-10 years	11-25 years	Rec.	1-10 years	11-25 years	Rec.	1-10 years	11-25 years	Rec.	1-10 years	11-25 years
Excellent	5	4	20	5	4	16	7	-	-	19	11	23
Good	52	42	47	49	34	42	24	19	32	61	50	53
Fair	33	32	24	39	42	30	55	46	46	14	30	21
Poor	5	21	10	7	19	12	14	35	22	6	9	3
Total Percentage	100	99	101	100	99	100	100	100	100	100	100	100
Total resp.	40	47	51	41	47	50	42	48	50	36	46	47

To determine the perceived importance and usefulness of English language proficiency to the individual Filipinos we asked them to rank several potential advantages. Four alternatives were offered which appeared to be particularly critical from the angle of Filipino motivation: 1) better education, 2) more recognition, 3) improved interpersonal relations, and 4) better life. Table 24 shows the ranks obtained by these four alternatives (rank 1 being the most preferred alternative).

TABLE 24
FILIPINO RANKING OF ADVANTAGES OF ENGLISH LANGUAGE
PROFICIENCY

	Recruits	1-10 Years Service	11-25 Years Service
Find and use available educational and career opportunities more effectively	2	2	1
Obtain better recognition for one's personal qualities and skills	3	3	3
Establish better personal relationships with people	1	1	2
Advance faster and have a better life	4	4	4

The preference given to interpersonal relations indicates the importance Filipinos assign to the social dimension. The recruits and the group with medium length of service gave this social dimension the greatest weight. The group with the longest years of service ranked "better education and career" as the most important reason for acquiring English proficiency. The alternative "more recognition" bears on the social, interpersonal

dimension as well. Despite the high career motivation of Filipinos, "advancement, better life" received the lowest rank of the alternatives considered.

ACCENT-A LIABILITY TO COMMUNICATION

Filipino servicemen were asked to indicate other problems which make it difficult for Filipinos to talk with native English speakers. Some of the alternative answers involved characteristic language problems, while others referred to personality characteristics and attitudinal dispositions. The results shown in Table 25 indicate that regardless of length of service experience all three Filipino samples identified "accent, mistakes in pronunciation" as the most salient communication problem. Interestingly enough, the recognition of the seriousness of this shortcoming increases with the length of the service experience. The next most frequently mentioned problem was "lack of skill in expressing ideas in English", a problem which appears to diminish in scope with the length of service experience. The other alternatives involving personality characteristics and attitudinal dispositions also receive considerable attention: "lack of self-confidence", "lack of common interest", and "failure to get attention". This second group of reactions makes it apparent that the Filipinos view communication failures in close relationship to their human, social consequences.

TABLE 25
PROBLEMS OF FILIPINOS IN COMMUNICATION AS PERCEIVED BY
FILIPINO RESPONDENTS

	Recruits	1-10 Years Service	11-25 Years Service
Lack of skill in expressing ideas in English	24	22	15
Mistakes in pronunciation and accent	26	32	35
Failure to get attention	11	11	11
Limited ability to talk about questions of interest	15	13	16
Lack of self-confidence	16	17	20
Other	8	5	3
Total Percentage	100	100	100
Total number of responses	202	214	243

To approach the problem of communication from a different angle, we asked Filipinos to indicate characteristics of people in the host environment which are detrimental in communication. The question posed was: "Based on your experiences, which of the following characteristics of the native English speaker make talking with him difficult for the average Filipino?"

The single most frequently mentioned problem was "impatience with accent" (see Table 26). Again, the concern with this problem rather than decreasing actually increases with the length of service; Filipinos with longer service, rather than overcoming this problem, may become increasingly aware of it or suffer increasingly from its consequences.

The next two most frequently chosen items were "different concepts and values" and "different views". The weight given to these responses shows the Filipinos' awareness of the differences in cultural frames of reference.

Another sizable response was "negative attitudes". This is a direct reference to ethnocentrism, negative attitudes toward foreigners, Filipinos in particular. Although the percentage accumulated by this reaction is not particularly high, it is sizable enough to indicate that Filipinos recognize ethnocentric attitudes as a serious communication problem.

TABLE 26
AMERICAN ATTITUDES AND DISPOSITIONS
DETRIMENTAL TO COMMUNICATION AS PERCEIVED BY FILIPINO RESPONDENTS

	Percentage of Group Giving Response		
	Recruits	1-10 Years Service	11-25 Years Service
Impatience with accent	19	22	27
Negative attitude	16	23	20
Narrow scope of interest	10	14	15
Different views	24	18	17
Different concepts and values	25	18	17
Other	5	3	4
Total Percentage	99	98	100
Total Number of Responses	184	209	253

To evaluate communication with Filipinos from the angle of the native American speaker, we asked the American servicemen to rate their Filipino shipmates on a few dimensions important to effective communication. Table 27 shows that on three of the four dimensions the Americans rated the Filipinos rather high. Close to 70-80% judged Filipinos as "good" to "excellent" in "communicating experiences from their own culture," in "understanding concepts like fairness or efficiency as Americans do," and in their "capability to relate to the interest of the average American."

They evaluated Filipinos somewhat less favorably in respect to their skills in expressing their ideas in English. Across the groups with different service years there were only minor differences. As a relatively weak but fairly consistent trend, the American recruits appear to be more positive in their evaluation of Filipinos than Americans with longer service experience.

FRIENDLINESS OF PEERS AND SUPERIORS

There were indications in the Human Resource Management Survey that Filipinos have problems in interpersonal relations with their American peers. This made it desirable to introduce a few questions dealing with the interaction of Filipino servicemen with their social environment. Most of the questions addressed interactions and relationships within the Navy in an attempt to assess how Filipinos feel about Filipinos and Americans in their social environment: how much contact they have with people, who initiates these contacts, what is their nature, and how much do they trust others.

The results of the HRM survey had suggested that although Filipino servicemen are fundamentally more satisfied than most with their life in the U.S. Navy, they do live in a social climate which is less than satisfactory. In the HRM survey Filipinos scored lowest on the question "how friendly and approachable are people in your work group?" There were some doubts about the interpretation of these low Filipino scores. It was questionable who the Filipinos were thinking of as unfriendly and hard to approach. Most likely they had their native American shipmates

TABLE 27

AMERICANS' EVALUATION OF FILIPINOS IN RESPECT TO THEIR COMMUNICATION SKILLS

Response	Expression of Ideas in English			Communicating Experiences from their own Culture			Understanding Concepts Like Fairness or Efficiency as Americans do			Capability to Relate to Interests of the Average American		
	Recr.	1-10 Years	11-25 Years	Recr.	1-10 Years	11-25 Years	Recr.	1-10 Years	11-25 Years	Recr.	1-10 Years	11-25 Years
Excellent	5	8	10	17	32	26	31	21	20	21	15	20
Good	57	49	49	62	38	45	43	52	50	55	53	48
Fair	36	35	31	21	23	26	21	17	28	21	19	30
Poor	2	9	10	-	6	2	5	10	2	2	13	2
Total Percentage	100	100	100	100	99	99	100	100	100	99	100	100
Total Number of Respondents	42	49	51	42	47	49	42	48	50	42	47	50

in mind, but it was also possible that they were thinking primarily of their superiors. Since a large percentage of Filipinos work with other Filipinos as stewards and cooks, they could even have had some of their Filipino co-workers in mind.

To clarify who the Filipinos actually feel are unfriendly and unapproachable, we asked them about these groups of people individually. As shown in Table 28, more than half of the respondents described other Filipinos as very friendly and approachable, and most of the others characterized them as "quite" friendly and approachable. The categories denoting unfriendliness were used to a very limited extent. These results show that Filipinos apparently do not have any contact problem with their compatriots in general. While little research is needed to show that the Filipinos get along well with each other to the point of forming small segregated groups, the above finding does provide a certain baseline against which the following data can be evaluated.

TABLE 28
FRIENDLINESS OF FILIPINO SHIPMATES AS PERCEIVED BY
FILIPINO RESPONDENTS

	Percentage of Group Giving Response		
	Recruits	1-10 Years Service	11-25 Years Service
Very much	57	43	56
Quite	40	51	36
A little	3	5	6
Not at all	-	1	2
Total Percentage	100	100	100
Total Number of Respondents	77	83	100

The majority of Filipinos described their native American shipmates as "quite" friendly and approachable (Table 29). This reflects a more reserved position than the clearly positive alternative "very much," which attracted about 20-30% of the choices. About 20% of the respondents chose the negative categories of "a little" or "not at all." The position of the three service groups is closely similar on this question. However, the group with the longest service experience does take a more optimistic position about the friendliness and approachability of their American shipmates.

TABLE 29
FRIENDLINESS OF AMERICAN SHIPMATES AS PERCEIVED
BY FILIPINO RESPONDENTS

	Percentage of Group Giving Response		
	Recruits	1-10 Years Service	11-25 Years Service
Very much	20	22	32
Quite	71	54	44
A little	6	22	22
Not at all	3	2	2
Total Percentage	100	100	100
Total Number of Respondents	76	83	96

When asked how they felt about other native English-speaking people in the service, their reactions, as shown in Table 30, parallel the reactions of Filipinos to their American shipmates. This similarity suggests that the Filipinos attribute similar attitudes and behavior to their U.S.-born shipmates and to Americans in general. This may mean that the experiences with their shipmates are generalized to a large extent.

TABLE 30
FRIENDLINESS OF OTHER AMERICANS IN THE SERVICE AS
PERCEIVED BY FILIPINO RESPONDENTS

	Percentage of Group Giving Response		
	Recruits	1-10 Years Service	11-25 Years Service
Very much	21	20	31
Quite	59	60	48
A little	16	18	17
Not at all	4	1	4
Total Percentage	100	99	100
Total Number of Respondents	76	83	96

Another group which deserves separate attention is made up of people who occupy a higher position in the military hierarchy. Assessing a person's attitude toward people in positions of command and influence is an interesting and somewhat delicate matter in any organization, military or civilian. While an individual's relationship to his peers is frequently viewed as a personal affair, his relationship to superiors is generally viewed as an indication of his relationship to the given organization or institution.

To the question "how friendly and approachable are your superiors?" the three groups responded fairly similarly. Table 31 shows that 75-90% of the respondents characterized superiors as being "very" or "quite" friendly and approachable. It is interesting and relevant to note that Filipino servicemen consider their superiors more friendly and approachable than their fellow shipmates or service people in general. The finding that peers are considered less sociable than people in positions of power and authority is somewhat surprising on at least two accounts. First, it is contrary to common expectations as American servicemen generally consider their peers to be more friendly and approachable than their superiors. Furthermore, the Filipino characterization of superiors as friendly and approachable does not support the assumption that Filipinos respond more favorably out of fear. Their reactions convey the impression of closeness and trust rather than distance and fear. The Filipino responses to the next few questions support this same general impression.

TABLE 31
FRIENDLINESS OF SUPERIORS AS PERCEIVED BY FILIPINO
RESPONDENTS

	Percentage of Group Giving Response		
	Recruits	1-10 Years Service	11-25 Years Service
Very much	36	25	33
Quite	55	49	45
A little	8	23	19
Not at all	1	2	3
Total Percentage	100	99	100
Total Number of Respondents	75	83	96

ATTENTION FROM PEERS AND SUPERIORS

To assess how much attention Filipino servicemen feel they receive from their social environment within and outside of the service, we asked the question: "When you talk, to what extent do people listen?"

About 95% of the Filipino respondents reported that their Filipino shipmates listen "very much" or "quite" a bit (see Table 32). This high percentage is understandable considering that they are referring to their own compatriots in equal position. This information offers again a baseline for the comparison of reactions in attention received from native American personnel.

TABLE 32
ATTENTION RECEIVED FROM FILIPINO SHIPMATES AS PERCEIVED
BY FILIPINO RESPONDENTS

	Percentage of Group Giving Response		
	Recruits	1-10 Years Service	11-25 Years Service
Very much	53	36	56
Quite	43	57	38
A little	3	7	4
Not at all	1	-	1
Total Percentage	100	100	99
Total Number of Respondents	75	84	99

A general comparison of the results shown in Tables 32 and 33 indicates that the Filipino servicemen feel that they receive substantially less attention from their native American shipmates than from other Filipinos, as reflected by the sizable drop in the "very much" category. Although the group with longest service includes a higher percentage of respondents who feel they are "very much" listened to, in general the Filipino groups respond relatively similarly.

TABLE 33
ATTENTION RECEIVED FROM AMERICAN SHIPMATES AS
PERCEIVED BY FILIPINO RESPONDENTS

	Percentage of Group Giving Response		
	Recruits	1-10 Years Service	11-25 Years Service
Very much	19	21	34
Quite	67	63	48
A little	14	14	17
Not at all	-	1	-
Total Percentage	100	99	99
Total Number of Respondents	72	84	99

This same question asked about Americans outside of the service tells us how representative the American servicemen are of the American public in general in the eyes of the Filipino servicemen. The results are shown in Table 34.

TABLE 34
ATTENTION RECEIVED FROM AMERICANS IN GENERAL AS PERCEIVED BY
FILIPINO RESPONDENTS

	Percentage of Group Giving Response		
	Recruits	1-10 Years Service	11-25 Years Service
Very much	12	14	32
Quite	66	64	49
A little	19	20	17
Not at all	3	1	1
Total Percentage	100	99	99
Total Number of Respondents	73	83	99

The reactions reflecting the amount of attention received from American shipmates and the Americans in general are closely similar, although the general public received a slightly less favorable evaluation than the shipmates (see Tables 33 and 34). The results support the conclusion that the Filipino servicemen apparently view the American public and American servicemen in a closely similar fashion, at least in the context of sociability and attention. Furthermore, the Filipino reactions support the previous observation that the treatment received from native Americans as compared to their Filipino shipmates is viewed as distinctly less favorable.

Next, we may explore to what extent this generalization applies to superiors who predominantly have a U.S. background as well. The results in Table 35 show that superiors are again evaluated more favorably than American shipmates or the general public. About 85% of the respondents said that superiors listen "very much" or "quite" a lot when they talk to them. This finding supports previous observations that the Filipino servicemen apparently feel more positively about their superiors' social attitudes and behavior than those of their native American shipmates or the public at large.

TABLE 35
ATTENTION RECEIVED FROM SUPERIORS AS PERCEIVED BY FILIPINO
RESPONDENTS

	Percentage of Group Giving Response		
	Recruits	1-10 Years Service	11-25 Years Service
Very much	33	25	45
Quite	51	58	40
A little	15	14	16
Not at all	1	2	-
Total Percentage	100	99	101
Total Number of Respondents	73	84	96

TRUST IN PEERS AND SUPERIORS

Another aspect of interpersonal relations involves trust, faith in others, and relying on people's honesty, sincerity, good intentions. In this respect we asked Filipinos to indicate the extent to which they had confidence and trust in selected groups of people. About 50% of our Filipino respondents stated that they had "very much" confidence and trust in their compatriots serving in the Navy; about 45% stated that they had "quite" a bit of confidence. The reactions, shown in Table 36, were closely similar for all three service groups, with no indication that the length of service has any effect on the level of confidence and trust expressed.

TABLE 36
FILIPINOS' TRUST IN FILIPINO SHIPMATES

	Percentage of Group Giving Response		
	Recruits	1-10 Years Service	11-25 Years Service
Very much	51	49	52
Quite	45	46	43
A little	4	5	4
Not at all	-	-	1
Total Percentage	100	100	100
Total Number of Respondents	75	84	97

The situation apparently changes when dealing with confidence and trust placed in native American shipmates.

Table 37 indicates that there is considerably less confidence and trust expressed toward the American shipmates than toward their compatriots. All three service groups heavily used the response "quite". Although this is in itself a favorable response, it may be somewhat questionable in which sense it was actually used by the Filipinos who have a cultural

tradition to avoid blunt expression of negative feelings. Those who directly express lack of confidence and trust by using the responses "a little" or "not at all" amount to an average of 15% for all three service groups.

TABLE 37
FILIPINOS' TRUST IN AMERICAN SHIPMATES

	Percentage of Group Giving Response		
	Recruits	1-10 Years Service	11-25 Years Service
Very much	11	25	29
Quite	74	60	53
A little	15	14	17
Not at all	-	1	1
Total Percentage	100	100	100
Total Number of Respondents	74	84	100

A closely similar distribution of responses was obtained when Filipinos were asked about American people in general (see Table 38). Actually the negative responses slightly increased. Little or no confidence was expressed by about 20% of the respondents. This suggests that the Filipino servicemen trust people outside the service a little less than they trust their American shipmates. The differences between service groups are small. The percentage of respondents expressing "very much" confidence in the American people was highest in the group with longest service and lowest with recruits.

TABLE 38
FILIPINOS' TRUST IN AMERICAN PEOPLE IN GENERAL

	Percentage of Group Giving Response		
	Recruits	1-10 Years Service	11-25 Years Service
Very much	11	17	24
Quite	70	61	55
A little	18	20	14
Not at all	1	2	6
Total Percentage	100	100	99
Total Number of Respondents	73	84	98

Attitudes expressed toward superiors were again very favorable (see Table 39). Compared to native American shipmates and people outside the service, superiors received the highest percentage of reaction showing "very much" confidence and trust, and the least percentage indicating no confidence and trust. These observations reinforce the previous observations that the Filipino servicemen apparently feel a closer and more positive relationship to their superiors than to their American shipmates or people outside of the service.

TABLE 39
FILIPINOS' TRUST IN SUPERIORS

	Percentage of Group Giving Response		
	Recruits	1-10 Years Service	11-25 Years Service
Very much	43	24	40
Quite	51	58	44
A little	6	17	14
Not at all	-	1	2
Total Percentage	100	100	100
Total Number of Respondents	72	83	96

SOCIAL INTERACTION AND ATTITUDES

To obtain another glimpse into the relationship of American and Filipino servicemen we asked who initiates conversation. Between people of equal social standing it would be natural to expect that the number of occasions when each party starts the conversation would be equal. A deviation from this one-to-one ratio is likely to reflect on the inequality of social relations. Thus, we asked the Filipino servicemen the following question: "In your observation, in non-service-related communications between Filipinos and native English speakers, who starts the conversation most often?"

The results in Table 40 suggest that Filipinos generally expect the American servicemen to initiate a conversation in a ratio of about 6:4. Although this ratio is not excessively imbalanced, it suggests that the Filipinos perceive the situation as socially unequal and take it for granted that American shipmates initiate conversations.

TABLE 40
BETWEEN AMERICAN AND FILIPINO SERVICEMEN WHO INITIATES
CONVERSATION

Group	Percentage of Group Giving Response		
	Recruits	1-10 Years Service	11-25 Years Service
Americans	61	57	59
Filipinos	39	43	41
Total Percentage	100	100	100
Total Number of Respondents	75	77	96

To provide a proper reference point, and to ascertain that this finding does not reflect a generalized cultural expectation that the other party should always initiate conversation, we also asked Filipinos about their conversations with other Filipinos.

The results in Table 41 indicate here a reversed trend. Although the group with medium (1-10 years) length of service shows a 50/50 ratio of expectations, the majority of Filipinos state that in most contacts they themselves initiate the conversation.

TABLE 41
BETWEEN YOU AND OTHER FILIPINOS, WHO STARTS
CONVERSATION

Response	Percentage of Group Giving Response		
	Recruits	1-10 Years Service	11-25 Years Service
You	66	50	66
They	34	50	34
Total Percentage	100	100	100
Total Number of Respondents	71	78	100

This supports our tentative conclusion. The fact that Filipinos expect American servicemen to initiate conversation is apparently not a matter of cultural passivity or lack of initiative but appears to be specific to American-Filipino interpersonal relations. It suggests that the relationship between American and Filipino servicemen is unbalanced, unequal, at least as perceived by the Filipinos.

To determine the relative number and nature of contacts between American and Filipino servicemen, a few specific questions were asked about their contacts. American servicemen were asked how often they had talked with Filipinos during the last year. The results shown in Table 42 suggest that the frequency of contacts depends to a considerable extent on length of service. While about a third of the American recruits reported "frequent" talks with Filipinos, more than two-thirds of the Americans with medium and long years of service reported having frequent talks with Filipinos. The average length of these conversations was estimated by American recruits to be about 15 minutes, by servicemen with medium length of service about half an hour, and by servicemen with long service about 25 minutes.

TABLE 42
AMERICANS' ESTIMATE OF HOW OFTEN THEY TALK WITH FILIPINOS

Response	Percentage of Group Giving Response		
	Recruits	1-10 Years Service	11-25 Years Service
Frequently	33	69	69
Seldom	40	31	29
Never	27	0	2
Total Percentage	100	100	100
Total Number of Respondents	48	49	51

The American servicemen were asked to describe the nature of their conversation with Filipinos as (a) official and service-related, (b) personal, service-related, or (c) personal, social. The distribution of responses varied considerably, depending on the length of service (see Table 43). The majority of contacts were characterized as "personal, social" by the recruit group and also by the group with medium length of service. At the same time the relative majority (38%) of conversations reported by the group with long service experiences were characterized as "official and service-related."

TABLE 43
AMERICANS' DESCRIPTION OF CONVERSATION WITH FILIPINOS

Response	Percentage of Group Giving Response		
	Recruits	1-10 Years Service	11-25 Years Service
Official and service-related	2	26	38
Personal, service-related	34	30	34
Personal, social	64	44	28
Total Percentage	100	100	100
Total number of responses	44	66	79

About the actual topic of these conversations, a list of alternatives was offered from which the American respondent selected those relevant to his experiences. Table 44 gives the percentage of servicemen who reported discussing each subject matter with their Filipino shipmates. The tabulation lists the various topics in descending order by the amount of attention they received. Because some respondents chose several topics, the percentages total well over 100.

TABLE 44
TOPICS DISCUSSED WITH FILIPINOS AS REPORTED BY AMERICAN
RESPONDENTS

Topics of Conversation	Percentage of Group Discussing Topic		
	Recruits	1-10 Years Service	11-25 Years Service
Life conditions in the Philippines	60	66	75
Philippine way of life	60	63	69
Philippine customs	47	64	67
Their image of the American way of life	58	64	61
Their image of the U.S.	53	59	53
History of the Philippines	13	33	45
Philippine art	7	26	27
Total Number of Respondents	45	47	51

The distribution of interest for the three service groups appears to be similar. The intensity of interest or the opportunity for discussion seems to increase with the length of service.

As Filipinos are culturally predisposed to avoid direct expressions of negative feelings, the problems in interpersonal relations may become more apparent from the comparison of their attitudes expressed toward various groups. Their above average positive attitudes toward the Navy as an institution and toward commanders and superiors place their less enthusiastic reactions toward their peers into a more meaningful perspective. Our questionnaire results have shown that Filipinos feel their superiors are more friendly and approachable than their American shipmates; they also feel that they receive more attention from their superiors than from their shipmates and they expressed more confidence and trust in their superiors than in their shipmates. Thus our questionnaire data support the results of the Human Resources Management Survey, and other categories of information gathered in this study support this same general conclusion as well.

Particularly the attitude data obtained from the connotation task bear clearly on this point. The connotation task was used to avoid asking people directly about their feelings and attitudes. In the connotation task respondents are asked to indicate the degree to which a word is generally understood as having favorable or unfavorable connotation. Previous investigations have shown that this task produces valid information on people's actual attitudes (Szalay, Bryson 1974). Table 45 shows connotation scores obtained from the American and Filipino samples on a number of themes representing superiors (Commander, Navy) as well as peers (Shipmates, Friends). BOSS and MAN OF AUTHORITY were also included here because their cultural meanings, as inferred from word associations, indicate that the Filipino servicemen think apparently of these nonmilitary themes mainly in the context of the Naval hierarchy. These data lend some additional support to the observation that, compared to the American respondents, the Filipinos have more positive attitudes toward the Navy as an institution and its high ranking officers, while they are somewhat less positive toward their peers.

The attitudes of the American servicemen are just the reverse. They show a much more positive attitude toward their peers than toward their superiors, the command structure of the Navy. The contrast between the American and Filipino servicemen is particularly strong in attitudes toward superiors. On peers, particularly on SHIPMATES, the difference is small, at least as it appears at first sight. However, these results do not show whether Filipinos use SHIPMATE to denote their Filipino compatriots or their American shipmates. These two referents have an equal probability to occur for Filipinos, but, as the questionnaire data have already indicated, Filipino attitudes toward these two groups are quite different. To offer a quick comparison from a different angle, we have included attitude data obtained on AMERICANS and FILIPINOS in this table. As expected, the Filipinos show more positive attitudes toward FILIPINOS than toward AMERICANS. The difference becomes relatively small, however, if we compare it with the very sizable difference which emerges between the Americans' highly positive evaluation of themselves and their neutral evaluation of FILIPINOS. This difference appears to be at the

TABLE 45
AMERICAN AND FILIPINO ATTITUDES TOWARD SUPERIORS, PEERS, FILIPINOS AND AMERICANS

	Americans			Filipinos		
	Recruits	1-10 Years Service	11-25 Years Service	Recruits	1-10 Years Service	11-25 Years Service
<u>Superiors</u>						
COMMANDER	.3	-1.3	-.3	1.7	.7	1.0
NAVY	1.5	1.1	1.6	2.3	1.2	1.5
BOSS	.1	-.2	.7	1.6	.4	1.2
MAN OF AUTHORITY	.7	-.1	.6	1.5	1.1	1.2
<u>Peers</u>						
SHIPMATES	1.8	.6	1.5	.8	1.1	1.2
FRIENDS	2.7	2.0	2.3	2.0	2.1	1.8
<u>Nationality</u>						
AMERICANS	2.0	1.4	1.8	1.6	.8	1.2
FILIPINOS	.6	0	.5	2.5	2.1	2.2

very heart of the interpersonal problems. While Filipinos show more positive attitudes, the attitude of American shipmates toward them may be generally characterized as basically neutral reflecting little appreciation or personal interest. The Filipinos are apparently sensitive to this lack of interest and they suffer from the meagerness of personal contacts and relationships with their American shipmates. This creates a natural feeling of ambivalence which is likely to be responsible for the unusual observation that the Filipinos show more positive attitudes toward their superiors than toward their peers which is in clear contrast to the American frame of reference.

This brings us back to the problem of how much we can take the positive attitudes expressed by the Filipinos toward superiors at their face value. These positive attitudes have emerged in response to a broad variety of questions with high consistency. But skeptics may argue that consistency of overt responses to direct questions is in itself no proof: If a culture group is taught to make positive statements irrespective of their actual feelings, then consistency is no indication that the stated feelings are genuine. To resolve this dilemma, the word association method was used because it does not rely on direct questioning but infers feelings and attitudes from the spontaneously produced flow of verbal associations.

IMAGES OF SELF AND OTHERS

The following results show the images and meanings of Filipino and American Navy men. These images and meanings emerge from the analysis of their spontaneous free word associations. From a large number of themes used in this study, the following eight involve images: self images, images of each other, images of peers and superiors, social frame of reference. These images offer mosaic pieces of a broader picture of social relations; they convey certain consistent trends which suggest characteristic cultural priorities, salient dimensions of the social frame of reference.

	US	F
PATRIOTISM, PRIDE	413	147
patriotism	17	-
flag	116	64
pride	19	6
proud	51	8
love	18	10
honor	40	-
citizen	89	50
born	35	9
best	12	-
great	16	-

FREEDOM, DEMOCRACY	209	51
freedom	158	19
liberty	-	13
free	71	-
democracy	-	19

COUNTRY, GOVERNMENT	137	140
U.S., U.S.A.	47	45
nation	20	23
country	89	36
society	7	23
government	34	13

TRADITION, HERITAGE	136	64
culture	12	10
tradition	20	9
way	16	-
heritage	24	16
history	13	5
life	36	18
dream	15	6

ME	100	-
me	80	-
myself	12	-

NAVY	76	58
navy	46	42
sailor	15	-
ship	15	16

MONEY, RICH	46	46
money	36	3
rich,est	10	41

AMERICAN

MAIN COMPONENTS OF PERCEPTION AND EVALUATION BY AMERICAN AND FILIPINO GROUPS

	US%	F%
PATRIOTISM, PRIDE	21	7
FREEDOM, DEMOCRACY	11	2
COUNTRY, GOVERNMENT	10	7
TRADITION, HERITAGE	7	3
ME	5	-
NAVY	4	3
MONEY, RICH	2	2
WHITES, BLACKS, INDIANS	18	34
PEOPLE, MEN, WOMEN	12	19
TALL, POWERFUL	2	8
GOOD, FRIENDLY	2	7
DISCRIMINATION, PREJUDICE	-	3
LANGUAGE	-	2
MISCELLANEOUS	6	4

TOTAL SCORE

US = 1931

F = 2100

WHITES, BLACKS, INDIANS	US	F
whites	55	311
caucasian	-	20
blacks	46	116
Negro	-	22
Indian,s	183	96
race,s	28	50
nationality	16	38
brown,s	-	13
mixture	12	5
Mexican	12	13
Filipino	-	22

PEOPLE, MEN, WOMEN	US	F
people	224	394
person	153	269
human	27	-
woman	-	15
girls	-	15
men	30	32
boys	-	24
you	14	27
group	-	-
	-	12

TALL, POWERFUL	US	F
tall	32	161
blond,ey	-	65
big	-	14
beauty,ful	-	16
strong	-	23
power,ful	16	6
Intelligent	-	26
	-	11

GOOD, FRIENDLY	US	F
good	31	141
helpful	31	57
nice	-	13
friend	-	15
friendly	-	26
	-	30

DISCRIMINATION, PREJUD.	US	F
prejudice	-	59
discrimination	-	21
bad	-	11
ugly	-	16
	-	11

LANGUAGE	US	F
language	7	45
English	-	15
slang	7	15
	-	15

Figure 9

AMERICAN

The "Whites, Blacks, Indians" component is particularly strong in the Filipinos' image of Americans. This suggests a greater awareness of racial diversity and stronger sensitivity to racial problems. For the American servicemen this component is less salient and has a somewhat different focus. Their heavy references to Indians probably has more historical and symbolic roots. The Filipinos pay considerable attention to the physical characteristics of Americans, particularly their size ("Tall, Powerful"). This strong attention to size has been observed in a previous study in which Koreans also showed a keen awareness of such differences in respect to their image of Americans (Szalay et al. 1971). The psychological consequences of this emphasis on large size may deserve special attention, particularly in light of Adlerian psychology. "Good, Friendly" and "Prejudice, Discrimination" components reflect affects and evaluations. The Filipino reactions are substantially stronger in expressing both positive and negative feelings toward Americans. The negative feelings are apparently related to racial problems.

The most salient component in the American self image is "Patriotism, Citizenship." The American servicemen's responses convey a stronger patriotic connotation (flag, home). The Filipino reactions are less salient and convey a different undertone (e.g., citizen). The "Tradition, Heritage" component also carries some patriotic connotations but the main focus is on the past. There is a particularly strong American emphasis in the ideal of freedom. It is interesting to note that democracy was mentioned only by the Filipino servicemen. The "Country, Government" component reflects the attention given to political, social organizations. The American servicemen think primarily of country and government, while the Filipinos think more of society and nation.

PEOPLE, MEN, WOMEN	US	F
people	330	280
person	150	161
man, men	72	11
group	35	28
human	17	16
neighbor	12	17
American	11	-
girl	13	16
woman	25	7
wife	15	24
		-

FOREIGN, CUSTOMS	US	F
different	205	65
strange, r	70	-
foreign, or	19	-
culture	77	10
customs	31	29
	-	26

COOKS, FOOD	US	F
cooks	122	77
stewards	40	6
dishes	32	-
food	-	19
rice	28	40
	22	12

LANGUAGE, ACCENT	US	F
language	113	61
accent	61	32
tagalog	23	10
understand	6	19
	23	-

NAVY	US	F
Navy	46	21
shipmate	46	21
	26	-

BAD, ENEMY	US	F
bad	32	22
enemy	8	19
stupid	12	-
	12	3

MISCELLANEOUS	US	F
PI	42	22
born	13	-
equal	-	11
flip	11	-
sensitivo	18	-
	-	11

FILIPINO

MAIN COMPONENTS OF PERCEPTION AND EVALUATION BY AMERICAN AND FILIPINO GROUPS

	US%	F%
PEOPLE, MEN, WOMEN	22	13
FOREIGN, CUSTOMS	13	3
COOKS, FOOD	8	4
LANGUAGE, ACCENT	7	3
NAVY	5	1
BAD, ENEMY	2	1
RACE, BROWN, ORIENTAL	18	29
GOOD, FRIENDLY	10	17
PHILIPPINES, CITIZEN	11	13
BRAVE, PROUD	-	5
INTELLIGENT, SMART	1	4
HARD WORKER, INDUSTRIOUS	-	3
ME	-	3
MISCELLANEOUS	3	1

TOTAL SCORE

US = 1532

F = 2161

RACE, BROWN, ORIENTAL	US	F
race	54	627
nationality	29	116
minority	12	56
brown	27	248
dark	38	-
color	17	13
black hair	-	11
Asia, n, s	-	59
Oriental	38	45
short	29	34
small	29	33

GOOD, FRIENDLY	US	F
good	152	367
great	31	85
kind	-	13
helpful	6	31
honest	-	22
nice	-	22
loyal, ty	15	12
faithful	-	26
hospitable, ty	-	12
friendly	-	46
love, ing, r	78	74
fun, ny	6	24
	16	-

PHILIPPINES, CITIZEN	US	F
Philippines	170	289
subic	62	95
Island, s, er	11	-
Malay, an	33	3
Filipino	-	70
citizen	24	12
country	-	71
community	28	20
national	-	18
	12	-

BRAVE, PROUD	US	F
proud	-	113
pride	-	44
bravo	-	12
strong	-	45
	-	12

INTELLIGENT, SMART	US	F
Intelligent	15	80
smart	-	44
talent, ed	15	20
	-	16

HARD WORKER, INDUSTRIOUS	US	F
worker	6	69
hard worker	-	12
Industrious	-	32
	-	25

ME	US	F
me	-	68
I	-	46
home	-	11
	-	11

Figure 10

FILIPINO

The Filipinos' self image has a particularly salient component dealing with racial characteristics: "Brown, Race, Oriental." Their references to body size, small, short, seem to underline a feeling of racial self awareness. The Filipinos also stress their country of origin and their citizenship. Many positive personal characteristics are mentioned in the components "Good, Friendly" and "Brave, Proud." Being friendly and hospitable is a particularly salient quality in the Filipino self image. They also describe themselves as "Intelligent, Smart."

The American servicemen placed strongest emphasis on the general human dimension, "People, Men, Women" in their image of Filipinos. The American emphasis on the foreign origin and culture of Filipinos reflects a strong awareness of differences. The "Language, Accent" component conveys the idea that there is a problem in communication. The heavy American references to language and accent seem to indicate that the English language as spoken by Filipinos is of some concern to their native American shipmates. The strong "Cooks, Food" component shows that American servicemen think of Filipinos in terms of the roles most frequently assigned to Filipinos in the Navy.

ME

MAIN COMPONENTS OF PERCEPTION AND EVALUATION BY AMERICAN AND FILIPINO GROUPS

	US	F
<u>YOU, THEY, OTHERS</u>	283	93
us	29	5
we	19	-
you, yourself	179	74
others	15	-
him	12	11
they, them	29	3
<u>FATHER, HUSBAND</u>	117	24
father	40	11
husband	27	-
married	17	7
family	33	6
<u>FAT, HANDSOME</u>	81	81
fat	24	-
tall	10	11
short	-	15
handsome	16	22
strong	16	10
healthy	-	17
alive	15	6
<u>BROWN, WHITE</u>	47	32
brown	-	29
white	47	3
<u>WORKER, BOSS</u>	49	42
worker	32	37
boss	17	5
<u>MISCELLANEOUS</u>	68	79
bad	28	16
average	6	12
Bob	11	-
alone	17	23
am	-	13
poor	6	15

	US%	F%
YOU, THEY, OTHERS	17	5
FATHER, HUSBAND	7	1
FAT, HANDSOME	5	5
BROWN, WHITE	3	2
WORKER, BOSS	3	2
MISCELLANEOUS	4	4
I, MYSELF	34	38
GOOD, HAPPY, LOVING	15	23
MAN, HUMAN	6	9
FILIPINO, AMERICAN	1	4
INTELLIGENT, EDUCATED	2	4
NAVY, SAILOR	3	3
MISCELLANEOUS	4	4

TOTAL SCORE
US = 1642
F = 1771

<u>I, MYSELF</u>	562	667
I, am	109	212
ako (me)	-	24
myself	158	241
mine	6	35
self	53	62
person	139	46
individual	56	25
one	35	8
ego	6	14
<u>GOOD, HAPPY, LOVING</u>	241	402
good	62	96
great	18	8
friendly	23	27
happy	31	52
help,ful	11	25
honest	7	39
humble	-	14
kind	7	25
pruud	30	37
responsible	6	19
respect,ful	-	14
love,r,ing	46	46
<u>MAN, HUMAN</u>	94	154
man	51	111
people	9	16
human	34	27
<u>FILIPINO, AMERICAN</u>	18	75
Filipino	-	75
American	18	-
<u>INTELLIGENT, EDUCATED</u>	35	63
smart	17	9
intelligent	18	21
wise	-	12
educated	-	21
<u>NAVY, SAILOR</u>	47	59
sailor	-	20
servicemen	-	12
Navy	47	27

Figure 11

ME

"I, Myself," the strongest component for both groups, reflects the emphasis placed on the self as an individual person. It is remarkable that the Filipino groups outscore the American, as in all previous crosscultural comparisons on this concept, the Americans have scored higher. This dimension is usually interpreted as reflecting an egocentric, individualistic self image. The Americans view themselves in juxtaposition to others ("You, They, Others") to a much greater extent than the Filipinos do. The Filipinos show a stronger awareness of their sex role, of being a man, whereas the family role, "Father, Husband" apparently carries more weight in the self image of the American servicemen. While the two groups pay about equal attention to their physical characteristics ("Fat, Handsome"), the Filipinos show slightly more emphasis on their race and nationality.

One of the largest components for both groups contains references to positive personality and social characteristics which Americans and Filipinos attribute to themselves. While there is much agreement on the larger responses, the Filipinos tend to emphasize attributes relevant to interpersonal relations, such as helpful, kind, honest, humble, respectful. The Filipinos make slightly more references to intellectual characteristics.

These same trends emerged in the context of another stimulus aimed at assessing self image: I AM. In this context the juxtaposition of self to others (e.g., a "You, Others" component) did not emerge. However, some interesting negative characteristics not evident in their responses to ME did come out in their completion of the phrase I AM ... References to negative physical states such as tired, sick, hungry, and to personal problems, sad, lonely, were more numerous from the American groups (11% of American responses, 3% of Filipino).

INTERPERSONAL RELATIONS

MAIN COMPONENTS OF PERCEPTION AND EVALUATION BY AMERICAN AND FILIPINO GROUPS

LOVE, SEX	US	F
love	303	25
feelings	104	18
sex	44	3
wife	73	-
marriage	53	4
home	17	-
	12	-
BAD, NEEDED (LACKING)	109	24
bad	18	24
hate	24	-
hurt	12	-
needed (lacking)	55	-
COMMUNICATE, TALK	101	79
communicate, tion	15	36
understand, ing	42	40
talk, ing	44	3
MISCELLANEOUS	96	48
relation, ship	-	31
money	11	4
personal	20	-
self	14	-
drink, ing	-	13
life	15	-
na	12	-
what	12	-
unknown	12	-

LOVE, SEX	US%	F%
LOVE, SEX	32	2
BAD, NEEDED (LACKING)	11	2
COMMUNICATE, TALK	11	5
FRIENDS, COMPANIONS	13	33
GOOD	12	18
TOGETHERNESS, UNITY	3	13
NEIGHBORS, SHIPMATES	5	14
HELPFUL, COOPERATIVE	4	11
MISCELLANEOUS	10	3

TOTAL SCORE	US	F
	1,609	950

FRIENDS, COMPANIONS	US	F
friend, ship	119	532
brother, hood	119	459
buddy	-	11
companion, ship	-	24
company	-	27
	-	11
GOOD	115	294
good	58	114
malbuti (good)	-	14
get along	-	24
deal, ings	-	14
kind	8	13
loyal, ty	-	12
fair	12	3
TOGETHERNESS, UNITY	27	211
together, ness	27	111
unity	-	55
one, ness	-	31
share, ing	-	14
NEIGHBORS, SHIPMATES	80	226
neighbors	-	44
shipmate	-	33
group	-	28
people	51	37
Filipino	-	36
society	-	15
work	29	20
job	-	13
HELPFUL, COOPERATIVE	37	170
cooperation	-	79
help, ful, ing	37	91

Figure 12

INTERPERSONAL RELATIONS

First, it must be pointed out that INTERPERSONAL RELATIONS is one of the six words which was not presented to the Filipinos in English. The Filipino groups responded to PAKISAMA, a broadly used Tagalog concept which carries a highly culture-specific meaning and is not readily translatable. The American groups responded to INTERPERSONAL RELATIONS, the closest available translation equivalent.

"Love, Sex" is the strongest meaning component for the Americans. The American emphasis on love apparently carries strong sexual connotations not shared by the Filipinos. The Filipino meaning of interpersonal relations centers on friendship rather than love. The "Friends, Companions" component is several times stronger for Filipinos; this ratio is indicative of the salience Filipinos assign to friendship. The Filipinos also emphasize the importance of being "Helpful, Cooperative." Their concept of interpersonal relations implies a strong feeling of "Togetherness, Unity." The "Neighbors, Shipmates" component reveals the categories of people Filipinos think of in the context of interpersonal relations. The Americans place more emphasis on communication and understanding.

The component "Bad, Needed" conveys the idea that in the American interpretation, interpersonal relations can be both positive and negative. The low score achieved by Filipinos on this component, combined with their strong emphasis on the "Good" component, indicates that the connotation of this concept for Filipinos is predominantly positive.

Finally, it should be noted that the score accumulated by the Filipino responses is one and a half times larger than the total score of the American reactions. The difference is indicative of the high cultural dominance of this concept for Filipinos.

	US	F
FUN, HAPPINESS	222	101
party	31	4
play	12	9
fun	107	12
good times	17	16
enjoyment	29	5
happy,ness	26	55

NEED, IMPORTANT	96	16
need,ed	81	16
important	15	-

MANY, FEW	89	65
many	46	34
lots	-	11
few	43	15

FAMILY, HOME	88	32
family	24	3
relatives	16	10
wife	29	10
home	19	9

NAVY, WORK	49	13
Navy	24	-
work	25	13

BAD, ENEMY	69	80
bad	9	70
enemy	60	10

MISCELLANEOUS	17	22
money	-	11
life	6	11
Brad	11	-

FRIENDS

MAIN COMPONENTS OF PERCEPTION AND EVALUATION BY AMERICAN AND FILIPINO GROUPS

	US%	F%
FUN, HAPPINESS	12	5
NEED, IMPORTANT	5	1
MANY, FEW	5	3
FAMILY, HOME	5	2
NAVY, WORK	3	1
BUDDIES, SHIPMATES	21	26
GOOD, CLOSE	19	26
PEOPLE	13	17
HELP, ADVICE	7	9
TRUSTWORTHY, LOYAL	5	6
BAD, ENEMY	4	4
MISCELLANEOUS	1	1

TOTAL SCORE

US = 1826

F = 1907

BUDDIES, SHIPMATES	US	F
amigo	-	45
kalbigan(friend)	-	15
buddy,s	77	81
brothers	12	15
pal,s	43	46
partner,s	-	15
company	9	40
shipmate	86	76
coworker	11	7
companion,-ship	57	34
neighbors	88	97
relation,ship	6	19

GOOD, CLOSE	244	496
good	118	221
best	11	19
forever	12	-
close,-ness	74	29
intimate	-	15
share,ing	16	15
together,ness	24	34
understanding	18	87
love,ing	71	78

PEOPLE	242	317
people	145	79
man	-	17
boy,s	7	47
women	19	4
girl,s	37	73
group	-	20
Americans	-	25
Filipinos	-	22
Blacks	14	13
White,s	8	17
Christians	12	-

HELP, ADVICE	136	170
help,er,ing,	120	113
advice	-	11
kind	-	20
nice	16	26

TRUSTWORTHY, LOYAL	85	105
true	12	19
trust,worthy	41	40
honest	9	11
respect	-	14
loyal	23	10
faithful	-	11

Figure 13

FRIENDS

The largest component for both culture groups consists of various categories of people identified as friends: "Buddies, Shipmates." In the "People" component, the Filipinos give more specific and differentiated responses while the American servicemen mention people in general. Boy and girl and man and woman convey the idea of friendship between the sexes. References to Americans and Filipinos reflect emphasis on ties across national lines.

The description most frequently used by the Filipinos for friends is good, but they also describe friends as bad. These reactions reflect an important cultural difference in the Filipino and American concept of friendship. In less mobile, more traditional societies, friendship is viewed as a lasting tie, a connection which people maintain even if the relationship becomes tense or disadvantageous. For Americans friendship is more transient, more functional in the sense that people are friends only if they meet the positive criteria of friendship and serve effectively in a particular role (e.g., companionship, entertainment). It has value only if the personal ties are purely favorable and positive. For Americans the idea of bad friends does not exist; they speak instead of enemy. The "Fun, Happiness" component represents the entertainment dimension of friendship. Interestingly, this component is twice as strong for Americans, indicating that in the American cultural context friendship is strongly associated with entertainment and leisure. The Americans also put greater emphasis on the need for having friends ("Needed, Important"); perhaps the Filipinos make fewer references to need because for them friendship is less a matter of preference and family members and relatives fulfill these same needs.

SHIPMATE

MAIN COMPONENTS OF PERCEPTION AND EVALUATION BY AMERICAN AND FILIPINO GROUPS

	US	F
FRIEND, BUDDY	1004	711
friend, ship	640	455
buddy	205	95
pal	38	21
brother	-	17
partner	55	22
companion	58	55
comrade	-	12
bunkmate	8	22
neighbor	-	12

NAVY, SAILOR	301	231
Navy	117	41
sailor	71	75
ship, same-	71	72
enlisted	15	4
officer	7	27
sea	20	14

WORK, WORKER	196	98
work, e-	156	37
co-worker	40	61

LIBERTY	22	20
---------	----	----

	US%	F%
FRIEND, BUDDY	50	38
NAVY, SAILOR	15	12
WORK, WORKER	10	5
LIBERTY	1	1
GOOD, HELPFUL	10	14
AMERICAN, FILIPINO	2	8
TOGETHERNESS	2	6
PEOPLE, MAN	4	5
BAD, ENEMY	4	5
COMPANY, CREW, GROUP	2	4

TOTAL SCORE
US = 2017
F = 1881

GOOD, HELPFUL	US	F
good	34	123
cooperate, lon	-	19
help, ful, ing	101	84
reliable	11	6
honest	-	13
loyal, ty	8	18
trust	49	-
respect	6	11
AMERICAN, FILIPINO	35	159
American	-	39
Filipino	-	44
Mexican	6	12
Black	15	34
White	14	30
TOGETHERNESS	52	123
understanding	13	19
kind	-	13
close	15	-
love	-	13
together, ness	24	64
happy	-	14
PEOPLE, MAN	87	93
people	34	24
person	47	21
man	6	22
fellow	-	26
BAD, ENEMY	79	88
bad	19	51
enemy	33	25
drunk	12	-
hate, d, ful	-	12
different	15	-
COMPANY, CREW, GROUP	32	82
company	6	37
crew	7	13
team	19	6
group	-	20

Figure 14

SHIPMATE

"Friend, Buddy," the most salient component for both groups, is much stronger for the American servicemen. While the American responses focus on friendship, the Filipino reactions contain an additional element referring to the idea of living together: bunkmate, neighbor. The predominantly Filipino component "Togetherness, Understanding" further reinforces the importance Filipinos place on living together. References by both groups to "Navy, Sailor" are closely similar. The customary American emphasis on the job and on working together is reflected in the component "Work, Worker." The American servicemen have almost exclusively American shipmates in mind whereas for the Filipinos SHIPMATE refers to both Filipinos and Americans, including Whites, Blacks, and Mexicans. The stronger Filipino characterizations of their shipmates as good and helpful on the one hand and as bad and hateful on the other indicates that SHIPMATE is a somewhat ambivalent, emotion-laden issue for Filipinos. This emphasis on evaluations, especially on the negative side, is unusual for the Filipinos and may be explained by the fact that they are referring to their American shipmates as well as to other Filipinos.

COMMANDER

MAIN COMPONENTS OF PERCEPTION AND EVALUATION BY AMERICAN AND FILIPINO GROUPS

	US	F		US%	F%		US	F
BOSS, LEADER	557	512				AUTHORITY, POWER	127	238
boss	283	116				responsible, -ty	27	35
head	18	102		30	29	power, ful	-	16
in charge	38	49				authority	46	56
leader	172	182		30	27	strict	-	25
supervisor	14	-				order, s	42	34
superior	25	27		14	12	command, s	-	58
high, or, est	7	18		2	1	obey	12	14
senior	-	18						
OFFICERS, RANK	547	472				GOOD, SMART	76	167
officer	164	144		7	14	good	19	47
captain	38	52		4	10	helpful	-	14
chief, in -	102	95				respect, ed	34	27
CO	13	46		7	6	nice	14	10
XO	31	16				friend, ly	-	15
commandant	-	21		2	1	smart	9	24
skipper	28	6				intelligent	-	30
strips, s -	26	3		3	1			
president	34	23				SHIP, SQUADRON	130	107
rank	57	66				ship	75	43
brass	28	-				fleet	-	16
gold	26	-				base	10	14
						company	37	16
						squadron	8	18
NAVY, MILITARY	249	203						
military	25	41				MAN, PERSON	45	19
Navy	215	116				man	23	19
Army	9	32				person	22	-
Marine	-	14						
BAD, MEAN	30	11				MISCELLANEOUS	62	26
bad	6	11				American	-	11
mean	13	-				McNale	16	-
stupid	11	-				Moore	23	11
						old	11	-
						RTC	12	4

TOTAL SCORE

US = 1,823

F = 1,755

Figure 15

COMMANDER

"Boss, Leader" and "Officers, Rank" are particularly salient components by both American and Filipino service groups. The reactions subsumed under these components are quite similar, and they reflect only a slightly stronger emphasis on leadership and rank by the American group. A few of these reactions, such as the Filipinos' reference to "head," reflect a differential cultural emphasis. As previously observed, the American group makes more references to the Navy, while the Filipinos are predisposed to speak of the military in more general terms.

More distinct differences are observable in the "Authority, Power" component, which reflects a substantially stronger Filipino emphasis on the authority-based foundation of leadership. The component "Good, Smart" again shows a stronger Filipino emphasis on positive characteristics of social, interpersonal relevance.

MAIN COMPONENTS OF PERCEPTION AND EVALUATION BY AMERICAN AND FILIPINO GROUPS

	US	F
JOB, WORK	264	119
job	99	19
work	99	30
pay	22	6
money	43	28
office	1	36

MAN, ME	235	101
man	92	38
me	44	18
wife	28	4
father	14	10
friend, ly	20	15
people	13	10
person	24	6

OFFICER, CHIEF	210	178
Navy	35	7
officer	43	29
captain	23	20
chief	97	60
C.O.	-	17
commander	12	45

BAD, HATE	-	75	48
bad		40	30
crush		-	12
hate		17	6
mean		18	-

MISCELLANEOUS	17	36
fat	-	18
American	-	12
God	17	4

HEAD, LEADER	US	F
head	123	166
leader	79	111
manager	18	182
emo (boss)	-	12
senior	-	21
supervisor	82	52
top man	6	14
master	6	18
king	6	12
president	24	45
foreman	26	8
employer	32	6
executive	-	22
big man	-	12
owner	15	14

AUTHORITY, POWER	250	293
authority	96	50
in charge	57	74
big	8	56
strict	-	30
powerful	-	12
responsibility	52	21
orders	18	9
follow	-	12
respect	19	29

SUPERIOR, HIGHEST	65	187
superior, lty	56	150
higher, est	9	37

GOOD, UNDERSTANDING	115	145
good	92	68
nice	8	16
kind	-	18
fair	15	11
understanding	-	32

KNOWLEDGE, SMART	19	43
knowledge	7	17
smart	12	26

TOTAL SCORE

US 1,767

FBI - 1865

Figure 16

BOSS

"Head, Leader" is the strongest single component by both culture groups; nonetheless, its salience is distinctly greater for the Filipino group than for the American. The Filipinos think particularly vividly of head and manager.

Two components on which the American group place somewhat more emphasis are "Job, Work" and "Man, Me." "Job, Work" shows the frequently observed American emphasis on job, work, money and pay. "Man, Me" apparently becomes stronger for the American group because of their numerous references to family roles, the relationship of husband and wife. The Filipinos again score somewhat higher than the Americans on "Authority, Power." A similar, but more articulate emphasis is based on elevated social positions by references "Superior, Highest." The category "Good, Understanding" reflects the slightly stronger Filipino emphasis on certain social qualities and suggests a somewhat more positive evaluation of BOSS.

The concepts chosen from the area of interpersonal relations represent self and national images, the images of peers and superiors. The results emerging from the American and Filipino reactions indicate several trends consistent with the observations made previously in the context of service-related themes.

The reactions to the theme INTERPERSONAL RELATIONS are indicative of general cultural dispositions. The Filipinos place considerable emphasis on INTERPERSONAL RELATIONS (pakikisuma) which influences the meaning of several themes, such as FRIENDSHIP, the national self image (FILIPINO), and the individual self image (ME) as well. The sizable difference in dominance scores is a clear indication of the greater Filipino attention given to this theme. In contrast to the sex- and family-oriented American interpretation, the Filipinos capitalize on friendship, togetherness, help, and cooperation. The Filipino emphasis is clearly on social attributes and social cohesion.

These same attributes and values are reflected in the Filipino self and national images as well. The Filipinos characterize themselves individually as helpful, responsible, good and kind, and in their national self image these social attributes---good, helpful, honest, loyal, hospitable, kind---are similarly predominant. This indicates that the Filipinos view themselves in terms of social characteristics relevant to interpersonal relations. A second important component of the Filipino national self image involves racial identity. Not only do they make heavy references to Malaysian, Filipino, Asian, and other labels with ethnic-racial connotations---but several of the physical attributes---brown, short, small, black hair---also underline characteristics with strong racial implications.

These and other reactions indicate a high level of racial awareness and sensitivity. They look at themselves and at their American hosts in terms of certain contrasts---short-tall, brown-white, small-big. Both their individual and national self images emphasize qualities like pride and bravery, along such sociable qualities as friendly, good, kind, helpful and loyal. The emphasis on sociable behavior is consistent with strong emphasis on friendship and good interpersonal relations. This

sociability syndrome combined with their racial awareness and sensitivity creates a social frame of reference which deserves attention.

The Filipinos' image of the AMERICAN further underlines their disposition to view people in terms of racial identity and social attributes. In their image of Americans, White, Black, Indian, and Mexican racial identifications are particularly salient, together with heavy general references to race and nationality, and to a lesser extent to prejudice. The second largest group of references involves again social attributes---good, helpful, friendly---although the weight of these social characteristics is substantially less than the weight of similar reactions used to describe themselves, their own group. The prevalence of social, interpersonal value considerations in the Filipino frame of reference is particularly articulate in comparison with the lower attention paid by the American groups to the social, interpersonal dimension.

All four themes dealing with interpersonal relations and images show higher dominance score, for the Filipinos than for the Americans, indicating the greater subjective importance of these themes to Filipinos. The four themes dealing with peers and superiors present a somewhat more diverse picture.

In the context of FRIEND the Filipinos are fairly consistent in their emphasis on social interpersonal attributes such as good, kind, nice, helpful. Filipinos also make more references to the race and national background of friends.

In the context of SHIPMATE, reactions like good and loyal as well as the emphasis on togetherness and physical proximity still convey a social, interpersonal focus, but the salience of the social attributes is somewhat lower here. The ethnic-racial distinctions made between American and Filipino shipmates are quite strong and apparently consequential in the sense discussed previously.

The roles of COMMANDER and BOSS, used to represent superiors, show no differentiation along racial or national identity, but a strong emphasis on social attributes, such as good, kind, helpful, friendly. It is complemented by the Filipino emphasis on authority, accompanied by predominantly positive feelings. These observations are in agreement with

the questionnaire findings on the Filipinos' positive attitudes toward leadership. A distinctly positive attitude toward authority appears to be a common core to these diverse findings. The spontaneity of the reactions underlying these findings suggests that the Filipino's attitudes toward leadership are genuine. They see their superiors not only as intellectually competent but also as natural leaders, distinguished by such positive social qualities as being good, friendly, understanding. These qualities spontaneously emerge as a part of the global image. They do not suggest any fear or exaggerated social distance but a natural approval of leadership and authority.

The Filipino emphasis on social, interpersonal relations and on racial and national characteristics are two other consistent trends. It is quite apparent that the social and racial factors interact and reinforce each other. As the results indicate, they have produced with the Filipino servicemen a social frame of reference characterized by strong sensitivities in the field of interpersonal relations.

PART III. CULTURAL DISTANCE AND ADAPTATION

Beyond the extensive details obtained on specifics, it is relevant to ask how great is the cultural distance between Filipino and American servicemen in general, and how does this distance change as a result of the influences of the American environment? The Filipino recruits who have just arrived in the United States can be accepted as genuine representatives of the Filipino culture. A comparison of Filipino and American recruit groups reflects cultural differences in their actual proportions. The groups with medium and long service experiences are compared to assess whether the U.S. service experiences reduce the cultural distance originally measured between recruits. The comparison of the medium and long service groups with the recruits is used to show the extent to which Naval service affects Filipinos and Americans. The results bear on little known dimensions of cultural distance and change.

Cultural distance and change are unobservable and not readily accessible to empirical quantification. Those directly involved in the cross cultural process are frequently overwhelmed by the intangible nature and depth of the problem. For those inclined toward introspection the subject becomes particularly fascinating as well as frustrating---fascinating by its depth and implications, frustrating by its evasiveness. The frustration grows as well realize that the process is much too subtle to be traced by introspection.

The following attempt to reconstruct and map the process of cultural adaptation may appear to be hopelessly ambitious to those with first-hand experience and meaningless to the inexperienced.

The approach used in the present investigations relies on the recognition that word associations are sensitive indicators of priorities, perceptions, and evaluations. Since cultural adaptation involves changes in these variables, these changes should be identifiable from differences

in word associations produced in various phases of the adaptation process. Word associations offer a useful approach for more than one reason. They can be elicited from a broad range of concepts systematically selected to cover a variety of the main domains of the frames of reference (Szalay, Maday 1973). Furthermore, word associations offer spontaneous reactions relatively free of rational control. Finally, they are readily available in large numbers when used on group basis.

The Associative Group Analysis method has been adapted to measure psychocultural distance based on the similarity of hundreds of thousands of word associations elicited from cultural samples (Appendix 2). This approach assumes that the closer the agreement in the word associations produced by culture groups, the smaller is their psychocultural distance (Szalay and Bryson 1973).

The present study used two distance measures. The major one is the coefficient of similarity (Pearson's coefficient of correlation) which measures the similarity between response distributions produced by two groups to the same or translation-equivalent stimulus words. The more the high frequency responses produced by one group correspond to those produced by the other, and the more the low frequency responses produced by one group are the same as the low frequency responses produced by the other, the greater their similarity and the less their distance (see Appendix 2).

The second distance measure is based on dominance scores, which reflect the number of responses produced (see Appendix 2). As past experiments have demonstrated (Noble 1952; Szalay 1967), the number of responses a group produces to a particular word is a valid indicator of how meaningful, how psychologically important that word is for them. As the dominance scores inform us on the importance of themes, a correlation of dominance scores obtained from two groups across a broad variety of stimulus themes offers an empirical measure of the extent to which the groups agree in their priorities. The reliability and validity of these measures is discussed in Appendix 2).

Along the line of our present interest, these distance measures have two main applications. The comparison of American and Filipino groups in

their perceptions and evaluations bears directly on the question of psychocultural distance. A comparison of the groups representing different lengths of service, on the other hand, may be used for measuring changes produced by different experiences. For instance, a comparison of American recruits and American servicemen who have long service experiences suggests the possibility to explore how Naval service affects men; how it changes their priorities, perceptions, and evaluations. This utilization, which measures the distance between groups similar in background but different in experiences provides an opportunity to study changes in depth. In the framework of the present study two types of changes are particularly relevant. One is the effects of Naval service on native American servicemen; the other is how Filipino servicemen change due to the influences of the U.S. Naval environment.

EFFECTS OF NAVAL SERVICE ON AMERICAN SERVICEMEN

Although the Filipino Naval personnel and their cultural adaptation are in the focus of interest, a comparison of the American groups with short, medium and long service time offers useful background information.

First, in view of the novelty of the measures and the lack of criterion measures for validation, the above comparison offers an opportunity to explore the validity of the distance measures along certain assumptions. It is compelling to assume that there will be less distance between groups with short and medium service time and also between groups with medium and long service time than between groups with short and long service time. This assumption can be readily tested by using the distance measures.

Second, the distance measured among the American service groups with different lengths of service informs us on the rate and scope of institutional influences on American servicemen. This provides a meaningful baseline against which to compare the information obtained on the Filipino service groups and their adaptation to Naval service and the American way of life.

Using the various analytic techniques available we can examine the changes at several levels. At the level of detailed specifics we may explore how the group's images and meanings change. For instance, how does their image of the Navy change? What particular components increase or decrease in salience as a result of their service experience? At the other extreme, we can concentrate on the overall amount of change and find a single numerical value to express it. Such a value can be obtained based on the distances measured between groups along a broad variety of domains representing important dimensions of their frames of reference. Finally, we can explore the most salient dimensions of change---in other words, what particular domains (education, work, family) show the greatest increase or decrease as a result of experiences in the service.

As our interest is focused on Filipino Naval personnel, we have included here only one example of American changes: their image of the Navy. Figure 17 shows the main components of perceptions and evaluations reproduced from the reactions of the three American service groups: recruits, Navy men with one to ten years' experience, and Navy men with eleven to twenty-five years' experience. The procedure used in this analysis represents an adapted form of content analysis described in Appendix 2. The differences in the salience of the various components reflect on the changes produced in the image of the Navy by service experiences. The changes are discussed on the page opposite Figure 17.

MAIN COMPONENTS OF PERCEPTION AND EVALUATION BY AMERICAN GROUPS WITH VARYING LENGTHS OF SERVICE

Figure 17

NAVY

The tabulation of the responses was organized to show on the left side the components which decreased over time and on the right side the components which increased as a result of military service.

The attention paid to "Education, Training" showed a gradual decrease. This indicates that the opportunities offered by the Navy in the field of occupational training and education have a great appeal during the early years of the service. Later the attention paid to educational opportunities decreases sharply. The two components on the top of the right column show a marked increase. "Job, Work, Career" capitalizes on the employment aspect of the Naval service. Practically all the reactions in this category increased gradually in salience. These changes suggest that with growing service years and experience the salience of the job aspect gradually increases. Similarly "Ships, Planes" acquired greater weight in the Navy image by the service groups with medium or long service experiences. On some of the other components, such as "Military, Security" or "Good, Fun" there were some changes, but the changes do not show a linear trend.

The example of NAVY is used to illustrate that specific single images undergo considerable changes during the service years. These changes involve a marked increase in the salience of some components and a fading away or decrease of others. What appears to be the decisive factor is how service experiences support or weaken original subjective concerns and interests.

Changes in the Overall Frame of Reference

The following analysis aims at a numerical expression of the amount of change. We were interested in two dimensions: changes in perceptions and evaluations, and changes in priorities.

Similarity in Perceptions and Evaluations. The rationale of the approach can be readily illustrated using the example of NAVY as a point of departure. The differences in the reactions of the American service groups with varying amounts of service experience showed changes in the specific elements of their perceptions and evaluation of the Navy. The following analysis is not concerned with specific changes but rather with the amount of change. The amount of change can be measured by the coefficient of similarity, a Pearsonian coefficient of correlation with values ranging between +1.0 and -1.0 (see Appendix 2). The more the groups give the same high and the same low frequency responses, the closer the similarity coefficient gets to the theoretical maximum of +1.0. The coefficients expressing the relationship of the American groups in their image of NAVY are shown in Table 45.

TABLE 45
SIMILARITY OF AMERICAN SERVICE GROUPS IN THEIR IMAGE OF THE NAVY

	Recruits/ 1-10 years	11-25 years/ Recruits	11-25 years/ 1-10 years
Coefficient of Similarity	.75	.78	.84

As discussed elsewhere (Appendix 2), there is a certain heterogeneity within groups. Consequently, the intragroup similarity practically never reaches the highest theoretical maximum of +1.0. Thus, the coefficients in Table 45 indicate a high level of agreement. The similarity is particularly close between the groups of medium (1-10) and long (11-25) years service. As will become apparent later, this trend is fairly consistent: it shows that the second period of service represented by the difference between medium and long service experiences produces less change than the first

period represented by the comparison between the recruits and the group with medium length of service.

The image of the NAVY was used to illustrate the idea of measuring the similarity between groups on selected themes. By applying this same technique to a wide variety of stimulus themes, we can measure distance and change on a broad basis and identify more generic trends. The more diverse the themes and the more systematically they are selected to represent the most salient domain of the groups' frames of reference, the closer the measurements will reflect the overall distance of the groups and their changes over time.

The similarity coefficients obtained between the three American service groups on all the stimulus themes used in the present study can be found in Appendix 3 (Table 1). The presentation is organized so that the stimulus words used in the representation of a particular domain are grouped together, and their mean value is used to indicate the distance characteristic of the groups in the selected domains.

The variation of similarity scores obtained on individual themes is fairly large. They range from a low of .16 (recruit vs. long service group on stimulus theme CAR) to a high of .95 (medium and long service groups on MOTHER). The range of variation observed for domains is naturally somewhat narrower, from .55 ("INTERPERSONAL RELATIONS") to .84 ("RELIGION"). These fairly broad variations indicate that the Naval experience has a differential impact on the various domains of life. In other words, the service has more influence in certain domains and less in others.

To obtain an overview helpful in the identification of main trends, it is informative to explore the similarity coefficients at the level of domains as shown in Table 46.

TABLE 46

SIMILARITY OF AMERICAN SERVICE GROUPS IN THE 14 DOMAINS STUDIED

Domains	Mean Coefficient of Similarity		
	Recruits/ 1-10 years	Recruits/ 11-25 years	1-10 years/ 11-25 years
"FAMILY"	.78	.75	.86
"FRIENDS"	.65	.57	.69
"SOCIETY"	.61	.65	.68
"SEX"	.80	.69	.83
"MONEY"	.74	.70	.80
"WORK"	.81	.76	.84
"EDUCATION"	.70	.66	.74
"HEALTH"	.68	.65	.77
"RELIGION"	.87	.84	.91
"SERVICE"	.82	.80	.83
"NAVY"	.77	.68	.84
"RECREATION"	.61	.53	.74
"SELF IMAGE"	.67	.58	.68
"INTERPERSONAL RELATIONS"	.63	.47	.54
Overall Mean	.74	.68	.78

The similarity coefficients presented in this table are means obtained by z transformation. They were calculated over six themes per domain. The average number of different responses per theme is about 160 in these comparisons. The total number of pairs of observations is about N=960.

There are two major trends which are particularly relevant. The first involves the relationship between time and change. In 13 out of the 14 comparisons greater difference in time was shown to result in greater distance. The recruits and groups with long (11-25 years) service are furthest apart in terms of service experiences and they were also found to be the least similar in their perceptions and evaluations. This trend is observable with a high degree of consistency. Only the domain "SOCIETY" deviated slightly from the general trend that the greater differences in service experience result in greater distance in perceptions and evaluations.

The second observation bears on the question in which phase of the service do the most changes occur. The differences in service years between the recruits and the group with medium (1-10 years) service are about the same as the difference in years between the medium (1-10 years) service and long (11-25 years) service groups. Thus, these two comparisons involve little difference in service years but they bear on two different phases of service experiences. The results indicate that there is consistently more similarity between the medium and long service groups than between the recruits and the group with medium length of service. This indicates that the first phase of Naval service produces more intensive changes in their frames of reference than does the second phase. In other words, the role of the Navy in shaping frames of reference is apparently stronger, more intensive in the earlier than in the later period. These conclusions call for further refinement. By using adequate controls it requires experimental clarification of how much this process can be attributed to the Navy and how much does it reflect simply on the process of human development. Furthermore, it is desirable to use more sample groups in order to trace the effects in shorter time periods.

The above findings on the American service groups are helpful in placing the change process in proper perspectives. In general, the results showing close relationship between time and change are not startling or unexpected. From a methodological angle, they demonstrate the capability to measure psychological distance and change. The consistency and predictability of the findings provides an opportunity for construct validation. Furthermore, the results obtained offer a

baseline for the interpretation of the findings obtained on the Filipinos. These empirical results help to dispel doubts that the irregularities observed later in the Filipino adaptation reflect artifacts due to the limited reliability or analytic sensitivity of the measures. It is of practical consequence, furthermore, that the results show considerable variation in effects exerted on domains. As previously observed, the distance varies not only between groups but also across stimulus themes and domains. The variations observed across domains suggest that the Naval service has differential effects on the domains representing particular areas of life. To illustrate this point the following table shows the mean similarity of the American service groups in the 14 domains studied. The presentation of these coefficients starts with domains which show the highest similarity, that is, the least change, and ends with those which show the lowest similarity, that is, which have changed the most.

TABLE 47
DOMAINS ORDERED BY THE DECREASING SIMILARITY OF THE AMERICAN
SERVICE GROUPS

Domain	Mean Coefficient of Similarity
"RELIGION"	.88
"SERVICE"	.82
"WORK"	.80
"FAMILY"	.80
"SEX"	.78
"NAVY"	.77
"MONEY"	.75
"EDUCATION"	.70
"HEALTH"	.70
"SELF IMAGE"	.65
"SOCIETY"	.65
"FRIENDS"	.64
"RECREATION"	.63
"INTERPERSONAL RELATIONS"	.55
Overall Mean	.74

The mean similarity coefficient shown at the bottom of the table indicates the overall similarity measured between the three American service groups across all stimulus themes and domains: .74.

Similarity in Priorities. In addition to their perceptions, we may also compare our three samples on their priorities. That is, to what extent do the American servicemen agree on what is important? The subjective importance of themes representing timely ideas, events, and institutions is measured by the dominance score, which is based on the number of reactions the group produced in the free word association task (see Appendix 2). The dominance scores obtained from the American and

Filipino samples on all the themes used in this study are shown in Appendix 3 (Table 2). A correlation of the dominance scores was used to measure how similar the groups are in their priorities.

TABLE 48
SIMILARITY OF AMERICAN SERVICE GROUPS IN THEIR PRIORITIES

	Recruits/ 1-10 years	Recruits/ 11-25 years	1-10 years/ 11-25 years	N
Coefficient of Correlations	.81	.85	.92	78

The high coefficients indicate that the groups agree closely in their priorities. The groups furthest apart, the recruits and the group of long (11-25 years) service, do not show the lowest similarity here, although their distance is greater than the distance between the service groups with 1-10 and 11-25 years. In line with findings obtained previously on perceptual similarities, here also the group with medium (1-10 years) service and the group with long (11-25 years) service appear to be the closest. This suggests again that there is less change in the second period of service.

Based on the average dominance scores the priority given to particular domains was assessed. On the basis of the mean dominance score a rank-ordering of the domains was obtained. Table 49 shows the rankings with 1 being the highest and 14 the lowest.

TABLE 49
RANK ORDER OF DOMAINS BASED ON THE DOMINANCE SCORES OF THE
AMERICAN SAMPLES

Domains	Samples of American Servicemen			
	Recruits	1-10 years service	11-25 years service	Mean Rank
"FAMILY"	3	1	2	2
"FRIENDS"	9	9	9	10
"SOCIETY"	13	12	13	13
"SEX"	2	4	3	3
"MONEY"	11	5	6	6
"WORK"	12	10	11	11
"EDUCATION"	5	3	4	4
"HEALTH"	8	9	8	8
"RELIGION"	7	6	7	7
"SERVICE"	6	8	10	9
"NAVY"	4	7	5	5
"RECREATION"	1	2	1	1
"SELF IMAGE"	10	11	12	12
"INTERPERSONAL RELATIONS"	14	13	14	14

The agreement of groups on the subjective importance given to particular domains is relatively close. Yet this close agreement does not preclude the emergence of such apparently age-determined trends as the increasing importance assigned to money by the groups with long service years compared to the lesser attention given by this group to other domains such as "WORK" or "SERVICE."

Beyond their close similarities, the American Navy men with short, medium and long service experiences show in both major dimensions explored certain distinct differences. There seems to be a closer agreement between these service groups in their priorities than in their perceptions; nonetheless, in both dimensions their differences reflect similar trends. Although the specifics of their differences go beyond the scope of our present interest, at a generic level the results indicate that the distances between these service groups are quantifiable and appear to be a direct function of time.

EFFECTS OF U.S. NAVAL SERVICE ON FILIPINO SERVICEMEN

The preceding comparisons of American servicemen with short, medium and long service experiences have shown how the length of service affects the similarity of the American groups. These comparisons showed that Naval service does affect the frame of reference of the U.S. born Navy men and that they undergo changes as a positive function of the time spent in the service.

The following comparison of Filipino service groups represents a more special and interesting case. As the time spent by the Filipinos in Naval service represents time spent in a cultural environment different from their native culture, the influences the Filipinos are exposed to fall again in the category of culture change or acculturation. Using the recruits as representing the Filipino culture relatively in its original form, we examine the extent to which Filipinos with increasing U.S. service experiences decrease their similarity with the native Filipino culture. The results could naturally become more conclusive if we could have included in the comparison Filipinos of different service years serving in the Filipino Navy. Such control groups would have allowed to partial out the effects of age and maturation.

Changes in Selected Images and Meanings

The following four themes, ME, FILIPINO, AMERICAN, NAVY, are examined individually to show how main components of perceptions and evaluations change as a result of service experiences. In the identification of main meaning components a content analytic procedure was used which is elaborated in some detail in Appendix 2. The results of this analysis are shown on the following pages. The tabular presentations have been organized to start in the left hand column with components which showed a loss in salience and on the top of the right hand column components which increased their salience as an apparent result of time spent in American environment.

ME

MAIN COMPONENTS OF PERCEPTION AND EVALUATION BY FILIPINO GROUPS WITH VARYING LENGTHS OF SERVICE

	R	1-10	11-25
<u>GOOD, HAPPY, PROUD</u>	324	238	241
good	57	67	68
better	-	15	-
friendly	23	14	16
happy	48	14	34
helpful	17	11	9
kind	13	36	-
humble	16	12	-
love, r, ing	12	19	60
honest	19	34	24
loyal	18	-	-
responsible	43	-	-
proud	45	16	13
respect	-	-	17
brave	13	-	-
<u>BROWN, SHORT, HANDSOME</u>	96	46	41
brown	12	24	21
short	24	6	-
handsome	27	16	-
strong	19	-	-
healthy	14	-	20
<u>FILIPINO</u>	101	49	18
Filipino	101	31	18
Pilipino	-	18	-
<u>NAVY, SAILOR</u>	78	29	24
Navy	38	-	15
military	-	14	-
sailor	40	-	-
serviceman	-	15	9
<u>INTELLIGENT, EDUCATED</u>	65	32	10
intelligent	22	19	-
educated	32	-	10
wise	11	13	-

	R	1-10	11-25
<u>I, MYSELF</u>	388	503	423
I, I am	158	159	105
myself	150	195	122
ako (me)	-	42	6
mine, my own	35	28	22
self	36	26	62
person	9	27	55
individual	-	9	41
ego	-	17	10
<u>MAN, HUMAN</u>	94	85	149
man	94	50	77
human	-	18	36
father	-	6	15
people	-	11	21
<u>YOU</u>	10	69	68
you	10	47	52
yourself	-	22	16
<u>ALONE, BAD</u>	23	38	60
alone	10	8	28
homesick	12	-	-
poor	-	17	13
bad	-	13	19
<u>WORKER</u>	12	13	49
work, er, ing	12	13	49
<u>MISCELLANEOUS</u>	18	81	42
who	-	-	16
average	18	6	-
am	-	25	-
married	-	-	13
wife	-	-	13
note	-	17	-
pronoun	-	17	-
rich	-	16	-

TOTAL SCORE	R	= 1,209
	1-10	= 1,183
	11-25	= 1,125

Figure 18

ME

The theme ME is used usually together with other stimuli, such as I AM, to explore the groups' self image. In the context of the present study I AM produced closely similar results. To save space we limit our presentation to the reactions obtained to ME.

"Good, Happy, Proud" includes positive attributes. The overall weight of the components shows a certain decrease, but a few specific reactions, good, loving, increased. At the same time some attributes which were used originally by the recruits and appeared to be characteristic of the Filipinos' self description, faded drastically: responsible, proud, brave, loyal, humble.

From the physical attributes brown, an adjective with racial undertone, showed a slight increase, while others --- short, handsome, strong---decreased. There is a particularly strong drop in the self identification as Filipino. The originally stronger identification of self with the Navy has also lost salience. The emphasis on the intellectual attributes decreased as well.

Among the components of the self image which decreased there was an apparent shift in references to "I, Myself." While specific reactions (I, my) decreased, references to person, individual, ego showed a substantial increase. There was also an increase in references to "You," to human and people, to alone, and to worker. These increases are interesting since they reflect the strengthening of components which were observed in previous investigations to be salient in the self image of American-born respondents (Szalay, Bryson, West 1973). Emphasis on the individual, the juxtaposition of I to you, the feeling of loneliness, appear to be characteristic components of the American self image as has been discussed elsewhere (Szalay, Maday 1976).

FILIPINO

MAIN COMPONENTS OF PERCEPTION AND EVALUATION BY FILIPINO GROUPS WITH VARYING LENGTHS OF SERVICE

RACE, BROWN, ORIENTAL	R	1-10	11-25
race	448	434	379
nationality	91	65	75
origin	28	50	34
minority	-	14	-
brown	200	23	-
color	-	155	130
black hair	-	8	17
Asian	22	-	-
oriental	30	36	51
short	8	34	47
small	34	23	11
	35	16	14
GOOD, FRIENDLY	395	151	192
good	65	52	52
great	25	-	-
kind	46	15	-
nice	-	16	7
helpful	43	-	-
honest	17	-	27
loyalty	31	-	20
faithful	6	12	6
love, ing	-	19	29
friendly	69	27	51
hospitality	81	10	-
happy	12	-	-
PHILIPPINES, COUNTRY	182	254	152
Philippines	60	96	44
Malayan	48	38	30
Filipino	-	23	-
country	15	6	19
community	-	14	22
citizenship	59	56	37
born	-	21	-
BRAVE, PROUD	126	42	55
brave	62	20	8
proud	41	12	34
pride	-	10	13
strong	23	-	-
INTELLIGENT, SMART	110	32	26
intelligent	59	11	18
smart	12	9	8
educated	8	12	-
talented	31	-	-
RACE, BROWN, ORIENTAL	28	31	27
GOOD, FRIENDLY	25	11	14
PHILIPPINES, COUNTRY	11	18	11
BRAVE, PROUD	8	3	4
INTELLIGENT, SMART	7	2	2
ME	4	2	3
PEOPLE, MEN, WOMEN	4	17	17
CULTURE, CUSTOMS	2	3	6
LANGUAGE, ACCENT	1	3	4
FOOD	2	4	4
HARD WORKER, INDUSTRIOUS	4	1	3
MISCELLANEOUS	4	4	5
TOTAL SCORE	R	= 1,590	
	1-10	= 1,383	
	11-25	= 1,408	
PEOPLE, MEN, WOMEN	68	240	236
people	61	132	129
person	-	9	12
man, men	-	20	34
group	-	25	7
human	7	14	13
girl	-	-	13
woman, en	-	30	16
boy	-	10	12
CULTURE, CUSTOMS	28	40	78
culture	-	17	40
customs	16	17	19
tradition	12	-	6
foreigner	-	6	13
LANGUAGE, ACCENT	19	41	59
language	9	23	31
accent	-	-	19
Tagalog	10	18	9
FOOD	29	49	64
food	9	27	44
dishes	14	10	14
rice	6	12	6
HARD WORKER, INDUSTRIOUS	70	19	48
worker	-	6	18
hard worker, ing	33	13	18
industrious	37	-	12
ME	59	23	42
me	48	11	33
1, 1 am	111	12	9
MISCELLANEOUS	56	58	77
religion	-	-	12
pogi	18	-	-
bad	-	21	16
obedient, ce	17	-	-
Navy	21	14	7
humble	-	-	11
sensitive	-	-	8
American	-	15	17

Figure 19

FILIPINO

The reactions of the Filipino service groups to the theme Filipino show salient components of the Filipinos' national self image. It is relevant to explore how this national self image changes as a result of the process of cultural adaptation.

The "Race, Brown, Oriental" component indicating racial identification showed a certain decrease in salience. While references reflecting a racial identity decreased, an awareness of Oriental, Asian background became more salient. Attributes which were originally salient in the characterization of the national self image as seen by the recruits, show a fairly general tendency of losing salience with the Filipinos living in the U.S. over an extended period. Although the rate of decrease is not uniform, the trend is apparently strong and unequivocal. The reactions indicate that after a longer stay in the U.S., Filipinos look at Filipinos somewhat less positively; they emphasize less such originally salient attributes as kind, helpful, hospitable, brave, intelligent, talented. It is interesting to observe that the characteristics fading away from the national self image correspond to a large extent to attributes which were observed to fade in the individual self image (see reactions to ME). Parallel to this decrease, other characteristics showed a marked increase in salience: "People, Men, Women," "Culture, Customs," "Language, Accent," "Food." These components show stronger emphasis on people in general. Furthermore, they stress dimensions which may be considered as generally more characteristic of the perspective of the outsider.

AMERICAN

MAIN COMPONENTS OF PERCEPTION AND EVALUATION BY FILIPINO GROUPS WITH VARYING LENGTHS OF SERVICE

WHITES, BLACKS, INDIANS	R	1-10	11-25
White, - color	267	214	152
Caucasian	6	23	10
blonde	20	-	-
Blacks	86	49	79
Negro	-	18	26
color	-	18	-
Indians	6	109	76
race	58	19	22
nationality	18	36	21
Mexican	-	14	11
brown	15	-	12
Filipino	-	9	35
Americano	-	20	-
TALL, POWERFUL, RICH	223	79	34
tall	118	12	-
big	17	6	8
strong	12	-	-
powerful	23	10	-
sophisticated	12	-	-
superior	-	13	-
pride	-	12	-
rich	29	26	26
wealthy	12	-	-
GOOD, FRIENDLY	157	59	120
good	44	23	41
nice	13	-	17
friendly	70	17	37
carefree	17	-	-
beautiful	13	6	18
love	-	13	7
FREEDOM, DEMOCRACY	62	12	39
freedom	16	6	15
liberty	20	6	-
democracy, tic	26	-	24
NAVY	37	42	36
Navy	51	27	25
ship	6	15	11
ENGLISH	33	25	-
English	18	11	-
slang	15	14	-

PEOPLE, MEN, WOMEN	R	1-10	11-25
people	139	196	202
human, - being	15	9	20
man	11	18	12
boy	6	24	17
woman, woman	12	17	11
girl	6	57	21
group	-	9	15
CULTURE, HERITAGE, CITIZENSHIP	103	156	189
culture	-	8	12
custom	15	-	-
heritage	-	9	23
life	8	15	13
dream	-	-	12
food	17	19	30
flag	33	39	56
citizenship	32	36	43
naturalized	-	13	-
born	-	17	-
COUNTRY, GOVERNMENT	60	119	120
U.S., U.S.A.	22	42	26
nation	-	29	17
country	12	23	36
society	14	13	19
government	12	6	8
president	-	6	14

TOTAL SCORE

R = 1,402
1-10 = 1,392
11-25 = 1,412

DISCRIMINATION, PREJUDICE	R	1-10	11-25
bad	40	46	42
ugly	13	6	13
discrimination	6	-	15
prejudice	9	12	-
hated	-	28	14
12	-	-	-
MISCELLANEOUS	24	15	90
goods	6	-	-
revolution	-	-	25
Red Cross	-	-	21
sometimes	18	-	-
made	-	-	20
car	-	15	24

Figure 20

AMERICAN

In the Filipinos' image of AMERICANS again the racial factors occupied a particularly salient position. The reactions show that Americans are identified to a large extent by their racial background, characteristics: Whites, Blacks, Indians. Although the attention paid to specific groups, e.g., Whites or Indians showed sizable variations, the generally high level of racial awareness remained fairly stable as reflected by the volume of reactions with racial connotation.

"Tall, Powerful, Rich" involve predominantly physical attributes which scored high originally with the recruits, but showed a steep decline as a function of service time. The data suggest that the physical attributes lose their contribution to the national image. The only attribute which remained stable was rich. Social attributes "Good, Friendly," on the other hand, show only a temporary decline in salience. The group with long service experiences scores fairly high.

Among the components which increased their salience, "People, Men, Women" scored particularly high. The scores indicate an increase in the importance of the social, interpersonal dimension in the long range. In the Filipino national self image this was the component which showed the greatest increase as well. In both images the components "Culture, Heritage, Citizenship" showed a noticeable increase in salience as well. A component specific to this theme, "Country, Government," showed a sizable increase. The increase in these reactions suggests an increase in the Filipinos' awareness and a familiarity with the American social, political institutions.

NAVY

MAIN COMPONENTS OF PERCEPTION AND EVALUATION BY FILIPINO GROUPS WITH VARYING LENGTHS OF SERVICE

	R	1-10	11-25		R	1-10	11-25
MILITARY, DEFENSE	304	215	183	CAREER, JOB, WORK	295	274	327
military	72	47	22	career	104	107	106
armed forces	30	25	18	profession	9	18	52
defense	7	16	21	job	60	44	44
protector	23	-	-	work	29	32	55
security	15	27	24	rate, ing	21	16	-
force	8	18	9	duty, short-	26	24	19
power, ful	65	-	20	responsibility	12	9	15
sea power	36	6	-	opportunity	34	-	18
service, branch-	12	67	45	retirement	-	7	18
organization	36	9	9	regulations	-	17	-
station	-	-	15				
SHIP, AIRPLANE	243	240	172	PEOPLE, MEN	26	105	126
ship	175	187	149	people	11	11	28
submarine	18	-	-	man	15	39	63
carrier	24	19	7	woman	-	13	9
fleet	6	14	-	wife	-	14	-
plane	20	20	16	family	-	-	20
				Blacks	-	15	6
				Filipinos	-	13	-
SAILOR, OFFICER	161	171	96	SEA, WATER	91	116	105
sailor	116	113	56	sea, -going	74	85	68
officer	30	42	7	ocean	8	7	14
admiral	15	-	9	waves	9	17	10
uniform	-	16	24	shore	-	7	13
EDUCATION, TRAINING	117	21	35	GOOD, BENEFITS	57	62	65
education	25	-	13	good	28	40	46
training	21	9	-	benefits	-	16	19
boot camp	16	-	-	great	16	6	-
experience	16	6	-	togetherness	13	-	-
travel	21	6	22				
adventure	18	-	-	U.S., JAPANESE, RUSSIAN	74	92	59
				U.S.	33	40	35
MONEY, PAY	74	27	51	American	15	15	11
money	33	20	30	Russian	-	23	13
good pay	23	-	-	British	6	14	-
pay	18	7	21	Philippine	20	-	-
				MISCELLANEOUS	49	52	89
				blue	6	6	15
				food	-	6	15
				future	-	7	16
				government	16	-	-
				life, r	27	33	30
				underway	-	-	13

TOTAL SCORE
R = 1,491
1-10 = 1,375
11-25 = 1,308

Figure 21

NAVY

In the image of the NAVY the Filipino recruits placed strong emphasis on the military nature and defense purpose of this institution. The salience of this component showed a certain decline over time. Compared to the military aspect, the civilian "Career, Job, Work" aspect maintained its high original salience and showed even a slight increase for the group with long service time. The originally high salience of "Ships, Airplanes" as a part of the Navy's image showed a certain decrease as well, while the attention paid to "Sea, Water" remained fairly constant, apparently little affected by service time.

A very substantive decrease is observable in the attention given to "Education, Training." As observed in the image of the Navy for the American servicemen, the Filipino recruits paid a great deal of attention to this component dealing with educational opportunities. This interest dropped quickly for both groups during the later years of service.

Furthermore, while the attention given to military ranks "Sailor, Officer," was the highest with the recruits, it later declined while the more civilian references to "People, Men" showed a distinct increase. While the recruits scored very low on this component, for the groups with longer service experiences, this component showed a sizable increase. In combination with the previously observed changes, such as the decrease in emphasis on military and ranks, this suggests that with progressing service time the Navy obtains a more civilian image. A similar trend was observed with the perceptions of the American servicemen as well.

The changes registered in the themes analyzed show the effects of the U.S. Naval service on the Filipino personnel in a selected area of self and national images. The findings indicate that in the new sociocultural environment the Filipino servicemen undergo systematic changes. The changes represent the products of the Filipino frame of reference as influenced by the U.S. cultural environment in general and by the Naval service in particular.

As the results indicate, the images analyzed are related and their changes show some common trends. The individual and national self image of the Filipinos and also the Filipino self image and the American image show a certain consistency reflecting similar concerns. Thus, for instance, there is a strong Filipino emphasis on race, racial identity, common to all these images. This high racial awareness is maintained with considerable stability over the entire period of service. Another common feature of the images studied is the emphasis on interpersonal, social dimensions. Rather than being stable over time, this dimension receives a relatively lower level of attention at the beginning of the service, but shows a considerable increase during the later service years. The relative position of these two trends suggests that the high level of racial awareness may be an important factor which contributes to the strong Filipino concern with the social, interpersonal dimension of life---a most outstanding characteristic of the Filipino frame of reference observed with consistency in the various parts of this study.

Changes in the Overall Frame of Reference

In the previous sections of this study we measured changes in the frame of reference by comparing the extensive response material the groups have produced in the context of stimulus themes and domains explored in the study. We compared their reactions along two main dimensions: (a) similarity of perceptions and evaluations and (b) similarity of priorities. The central question we are exploring in this comparison is: What is the distance between Filipino service groups exposed to American cultural experiences over various lengths of time.

Similarity in Perceptions and Evaluations. The overall similarity between groups in their perception and evaluation is measured by the coefficient of similarity discussed in Appendix 2. Next we compare Filipino service groups among each other. The recruits represent Filipinos relatively unaffected by the process of cultural adaptation. The group with 1-10 years of service represents Filipinos exposed to American cultural influences over a period of medium length. The Filipino sample with 11-25 years of experience was used to explore the effect of long cultural exposure. The comparison of these groups on single individual themes is shown in Table 1 of Appendix 3 in the three middle columns. A more summary presentation of these results showing the mean similarity coefficients at the level of the domains is given in the next table.

TABLE 50
SIMILARITY OF FILIPINO SERVICE GROUPS IN THE 14 DOMAINS STUDIED

Domains	Mean Coefficient of Similarity		
	Recruits/ 1-10 years	Recruits/ 11-25 years	1-10 years/ 11-25 years
"FAMILY"	.64	.66	.70
"FRIENDS"	.58	.61	.65
"SOCIETY"	.63	.73	.74
"SEX"	.68	.69	.73
"MONEY"	.69	.66	.77
"WORK"	.73	.70	.82
"EDUCATION"	.39	.39	.56
"HEALTH"	.49	.53	.67
"RELIGION"	.81	.83	.89
"SERVICE"	.69	.62	.84
"NAVY"	.65	.65	.80
"RECREATION"	.51	.52	.67
"SELF IMAGE"	.70	.69	.79
"INTERPERSONAL RELATIONS"	.70	.74	.77
Overall Mean	.65	.66	.76

The similarity coefficients presented in this table are means obtained by z transformation over six stimulus themes. The average number of different responses is about 240 in these comparisons. Thus the total number of observations is estimated N=1,400.

The comparison of recruits with the group of medium service experiences and cultural exposure shows a mean similarity of .65. This is about the same level of similarity as found between the groups representing the largest differences in exposure: recruits/11-25 years = .66. This is an unexpected finding since the Filipino group with longest service experience spent twice as much time in the United States as the group with medium service experience. It is natural to expect greater distance between groups more apart in years and experiences. The data on the comparison of the American service groups have shown previously that the American recruits and groups with medium service were more similar indeed (.74) than the recruits and the long service group (.68). This observation was highly consistent; on 13 of the 14 domains compared the long service group was further from the recruits than the group with service experiences of medium length. These findings on the American groups are consistent enough to suggest that our unexpected finding on the Filipino groups is not an artifact produced by unprecise measures. Also, other previous applications indicate (Szalay, Williams, Bryson, West 1976) that the similarity coefficient is a valid and sensitive measure. Thus, the results can be taken at face value suggesting that the first half of the Filipino service career produces a more intensive and sizable shift away from native cultural perceptions and evaluations, while the second half of the Filipino Naval career seems to produce no noticeable move further away from the native culture.

This finding is in good agreement with the results of the next comparison which shows that the groups with medium and long service experiences are relatively more similar (.76). From the 28 possible comparisons in all instances the comparison of groups with middle/long service produced higher coefficients than the comparison of the other groups. From the angle of the native Filipino culture, the Filipino groups with medium and long service assume apparently positions of close proximity. From the angle of the American culture, the perspective is somewhat different. The results presented later on the relationship of American and Filipino groups (Table 52) indicate namely that the American and Filipino groups with long service experiences are closer to each other than the groups with service experiences of medium length. This suggests

that the Filipino group with long service experiences can make some noticeable progress in approaching the American service group without getting further away from its own cultural background, at least as represented by the recruit sample.

About the relative rate of culture change the similarity coefficients presented in Table 50 leave little doubt that the adaptive changes do not progress at the same pace in the various domains under consideration. In certain domains like "RELIGION" or "WORK," or "SERVICE" there is a relatively high level of similarity maintained across the Filipino service groups, that is, the change is relatively slow. In other domains like "EDUCATION," "HEALTH" or "RECREATION" the differences among Filipino service groups are substantially more sizable, indicating a faster rate of change.

Similarity in Priorities. A second dimension in which to measure changes involves priorities. Based on the amount of responses produced, the dominance scores offer an empirical indicator of the subjective importance of timely issues, ideas, events as represented by our stimulus themes. The dominance scores are discussed in some detail in Appendix 2, and Table 2 of Appendix 3 shows the dominance scores obtained for the groups on each theme. Based on the mean scores calculated on themes used in the representation of a particular domain, mean dominance scores are obtained which show the relative importance of the domain for the group. A rank ordering of these mean scores gives the relative priority of domains. On most of the domains there is apparently a relatively high degree of agreement among the Filipino service groups. On a few, however, like "WORK" or "EDUCATION" the differences are fairly sizable. To obtain a measure of the overall agreement of the Filipino groups in their priorities the dominance scores were correlated, as shown in Table 51.

TABLE 51
SIMILARITY OF FILIPINO SERVICE GROUPS IN THEIR PRIORITIES

	Recruits/ 1-10 years	Recruits/ 11-25 years	1-10 years/ 11-25 years	N
Coefficient of Correlation	.89	.84	.90	78

The three groups show relatively high similarity in their priorities. As is reasonable to expect, the groups most apart in service years (recruits vs. group with 11-25 years of service) show slightly less agreement. As in the case of the American-born service group, those with more service (groups with medium and long service experiences) show the most agreement. Considering the relatively narrow data base of these comparisons, N=78, the differences are too small to be interpretable.

CHANGES IN AMERICAN-FILIPINO CULTURAL DISTANCE PRODUCED BY SERVICE EXPERIENCES

The following analysis bears on the question of how different are American and Filipino servicemen in their cultural frames of reference. The Filipino recruit sample is compared with the American recruit sample in order to reconstruct cultural distance in its original dimensions, little affected by service experiences and other potential influences of the U.S. environment. This original distance is likely to undergo modifications as a result of the intensive exposure of the Filipino personnel to the U.S. Naval environment. The Filipino samples with medium (1-10 years) service and long (11-25 years) service compared to American servicemen with matching service experiences show whether the original cultural distance changed as a function of time.

Differences in Cultural Images and Meanings

The data on American and Filipino meanings of selected themes in representing such problem areas as Naval service and interpersonal relations offer extensive information about U.S.-Filipino perceptions and evaluations.

As the previous chapters have presented fairly extensive information on characteristic American-Filipino images and meanings, at this point we will not present further examples.

Distance in the Cultural Frames of Reference

At a higher level of generality we can explore the overall psycho-cultural distance as measured along two main dimensions: the similarity in perceptions and similarity in priorities.

The similarity in perceptions is measured by the coefficient of similarity described earlier. The similarity coefficients calculated between American and Filipino samples of comparable service time are shown in Table 52. The first column of American-Filipino comparisons shows the similarity of the recruit groups and reflects the original cultural distance. The second column shows the similarity of the American and Filipino samples with medium length (1-10 years) service. The third column shows the similarity between groups of long (11-25 years) service. Some general trends are readily apparent. Again, the similarity coefficients obtained on individual themes showed considerable variations ranging from low negative values up to .9 (Appendix 3). In general the coefficients of the recruit groups are the lowest, indicating a considerable distance. The coefficients of the groups with the longest service experiences show, on the other hand, the highest values, reflecting considerably more similarity, that is, less distance. The decrease of original cultural differences with the length of the service is clearly shown by the mean similarity coefficients calculated on the fourteen domains.

TABLE 52
MEAN SIMILARITY OF AMERICAN AND FILIPINO SAMPLES OF SHORT, MEDIUM
AND LONG SERVICE IN SELECTED DOMAINS

Domains	Mean Coefficient of Similarity		
	Recruits	1-10 years service	11-25 years service
"FAMILY"	.50	.56	.73
"FRIENDS"	.42	.41	.61
"SOCIETY"	.39	.42	.53
"SEX"	.45	.63	.61
"MONEY"	.48	.66	.72
"WORK"	.64	.71	.73
"EDUCATION"	.23	.50	.54
"HEALTH"	.39	.56	.67
"RELIGION"	.70	.70	.75
"SERVICE"	.57	.72	.76
"NAVY"	.59	.66	.79
"RECREATION"	.23	.40	.56
"SELF IMAGE"	.38	.54	.57
"INTERPERSONAL RELATIONS"	.18	.11	.14
Overall Mean	.45	.56	.64

The similarity coefficients presented in this table are means obtained by z transformation over six stimulus themes. In these comparisons the average number of different responses per theme is about 200. The total number of observations is about N=1,200.

The mean similarity coefficients in the above table show several trends in cultural adaptation. The mean coefficients calculated over all domains support the conclusion that cultural adaptation is a direct but nonlinear function of the time spent in the host environment. In terms of the average time, the distance between the recruits and groups with medium length of service on the one hand and the medium and long service on the other, is about equal. Yet, the psychocultural distance between the recruits and the group with medium length of service is greater (11 points) than between the medium and long service groups (8 points). This suggests that during the first period of cultural adaptation the change is somewhat faster than during the second period.

These data place the cultural adaptation process of Filipino servicemen in new perspectives based on empirical findings. To begin with, the original American-Filipino cultural distance as measured by the comparison of the two recruit samples, is unusually high. This mean value of .45 is higher than any other comparable mean coefficient obtained in past cross-cultural studies. The psychocultural distance measured by a comparable similarity coefficient between American and Korean groups was .18 for students, .07 for urban workers, and .01 for farmers (Szalay, Moon, Bryson 1973). The similarity of Slovenian and American student groups measured by the same coefficient was .22 (Szalay, Pecjak, in press). A comparison of American and Puerto Rican students produced a similarity coefficient of .26 (Szalay, Bryson, West 1975) and the comparison of American and Spanish immigrant samples from Washington D.C. produced a mean coefficient of .32 (Szalay, Williams, Bryson, West 1976). The consistently lower values of these past comparisons suggest, that the Filipino recruits show more similarity with their American shipmates than most other foreigners would in a comparable situation.

This relative cultural proximity is likely to have more than one explanation. First, the Filipino recruits may represent a select group which is nonrepresentative of the broader population. It is likely that the majority of Filipino volunteers have been exposed to stronger, more intensive U.S. cultural influences than the rest of the population. Second, the sample of stimulus words used in this study is likely to be

somewhat unbalanced in the sense that it offers a disproportionately large number of stimulus themes in the areas of military service and social relations and consequently other domains of life are likely to be under-represented. An overrepresentation makes it likely that these investigations have paid stronger attention to areas in which Filipinos and Americans may have more than average similarities. As a third consideration, the Filipino groups represent an exceptional case because they could be tested in English as their native language. While previous cultural comparisons have probably been influenced by a translation factor, the present comparison which allowed to test the Filipinos in the same language as the Americans is somewhat exceptional.

The analysis conducted at the level of single stimulus themes also showed a remarkably high degree of correspondence. This indicates that in terms of their original dispositions the Filipinos, at least those who successfully meet the requirements and join the U.S. Navy, show a relatively high degree of similarity with the American cultural frame of reference.

Particularly close similarities were found in four domains: "RELIGION," "WORK," "SERVICE," and the "NAVY." The similarity in the religious domain is apparently a reflection on the Filipinos' commitment to Christianity, a religious orientation generally uncommon in developing countries. The other three domains illustrate a correspondence in areas which are of obvious importance from the angle of the Filipinos' performance and dedication to their jobs. It suggests that the Filipinos are exceptionally well predisposed to fit into an American institution with high demand and requirements for individual performance and motivation. The high similarity scores of the Filipinos in these work-related domains are in good agreement with their general reputation as hard and dependable workers. These high scores in turn substantially contribute to and at least partially explain the high mean similarity score (.45). This supports our previous assumption that the close similarity of Americans and Filipinos may be partially explained by our focus on service-related themes and domains.

Such a conclusion is further supported by the very low similarity scores in the domain of "INTERPERSONAL RELATIONS." This domain is quite exceptional as it contains themes which were found by experts to be not

really translatable into English. They were presented to the Filipinos in Tagalog. These are indeed apparently highly culture-specific concepts, achieving a very low mean similarity score of .18. This low score, and the broad variation of the mean similarity coefficients in the other domains support the observation that the cultural distance depends a great deal on the domains selected for comparison.

The second column of Table 52 shows the similarity of the American and Filipino groups with medium (1-10 years) service experiences. Compared to the recruits, 11 of 14 coefficients for the groups with medium length service experience showed an increase. This indicates that the Filipinos became on most domains more similar in their perceptions and evaluations to their American shipmates. Although the trend is fairly uniform, the amount of change is relatively modest (the mean change is .11).

The more noticeable changes are in the material dimensions of "SERVICE" and "WORK." The results indicate that these service years affect various domains of life with a selectivity. Domains of life requiring daily intensive involvement show more change. Yet, the amount of change observed even here is relatively modest, particularly if we consider the intense exposure of Filipino servicemen to a relatively homogenous environment, and the considerable internal pressure to become successful by American criteria and standards.

It is also of some interest to look at the domains which changed little or changed in the opposite direction. Among these we find "FAMILY," "FRIENDS," "SOCIETY," "INTERPERSONAL RELATIONS," and "RELIGION." The domains represent traditional areas with values established relatively early in childhood.

The similarity coefficients shown in the third column of Table 52 indicate a change process which is fairly consistent with the one observed in the previous period. In general the previously observed trends acquire additional articulation and confirmation. From the 28 possible comparisons of the coefficients of the third column with those in the previous two columns, there are only two in which the similarity coefficients of the shorter service periods show a higher value than the coefficients obtained on the second half of the service career marked by long (11-25 years)

service experiences. These findings indicate that there is a greater degree of similarity between Americans and Filipinos in the second half of the service career than in the previous two periods explored.

These findings suggest a broadening of the scope of the adaptation process. In respect to the rate of adaptation, there is little change, compared to the previous period. Again, we find a differential rate, depending on the domain considered, although the differences between domains are less marked than in the previous period. The overall rate of adaptation appears to be slower than observed previously. The difference of the mean similarity coefficient is eight points compared to the eleven point difference found previously. Compared to the previous period this indicates a declining rate of change.

This relatively low value, suggesting little approximation in the cultural frames of reference, is likely to bear on the choice Filipino servicemen make at retirement: after 25 years of service the majority prefer to return to the Philippines and spend the rest of their lives there.

In general these results offer quantitative information which show changes in the perceptual-evaluative dimensions of the Filipinos' frames of reference in relationship to the frames of reference of American servicemen of comparable age and rank. The data show the rate of change along the main domains used in the framework of the present investigations. The changes occur at a differential rate, depending apparently on the nature of the domain and on the intensity of exposure to cultural influences. The Filipinos start from a position of relative cultural proximity, and in certain service related domains the process of adaptation is substantial. In more tradition-bound domains like "RELIGION," "FRIENDS," "FAMILY," the adaptation is relatively slow and the overall rate of change is moderate. Despite the intensive exposure of the Filipino servicemen to American cultural influences and the relatively long period covered, the progress of acculturation in the realm of perceptual-evaluative changes measured over the entire period is relatively modest. It does not reach 20 points as measured by differences in the mean similarity coefficients, calculated between Filipinos and Americans representing short and long service experiences.

DISTANCE AND CHANGE IN PERSPECTIVE

The literature on cultural adaptation is rich and diverse, with the majority of studies focusing on single selected aspects such as changes in food preferences, ways of dressing, social attitudes. Some investigations suggest that complete adaptation may be a matter of a few years while others indicate that acculturation is a very slow process and at best is only relative and partial. A major source of these apparently conflicting opinions is that the investigations are looking at different dimensions of the change process and the studies vary greatly in area and depth.

Attempts at more global assessments are hampered by immense methodological difficulties. The word association approach offers an opportunity to measure cultural distance and change systematically, both globally and in depth. The comparative analysis reveals as yet unquantified dimensions of cultural differences and their changes in cultural adaptation.

At the level of specific perceptions and attitudes the change can be explored in selected images and meanings. For instance, consider how the Filipinos' image of Americans changed over time. As the data show, the Filipino recruits perceived Americans as tall, big, powerful. After years of service in the United States, the Filipinos paid apparently little attention to the size of the Americans, but became increasingly aware of other attributes involving the American culture, people, and government.

There were comparable changes in the self image of Filipinos as well. For instance, the salience of certain attributes such as brave, proud, and intelligent dropped drastically while the emphasis placed on customs, language, and food increased. References to their own size also decreased over time; the Filipinos became less short, just as Americans became less tall. This suggests that the salience of the contrast in size between Filipinos and Americans faded with time.

The shift from physical differences to other characteristics represents slow accumulative changes which take place over time. They progress by and large below the level of awareness of the people involved. Filipinos generally do not realize for instance, that as a part of their adaptation to the American social environment they cease to see the Americans as tall and themselves as short.

The example of size illustrates how changes occur in a selected perceptual dimension. In other dimensions of the self image the change may follow a different pattern and rate. For example, the Filipinos showed a strong tendency to describe people by their skin color, and the brown-white contrast retained its high level of salience for all Filipinos including the group with long service experiences. This suggests that the Filipinos show a high level of racial awareness; they are keenly aware of racial differences, and their awareness is maintained permanently over the entire adaptation period examined. Adaptation is apparently not a homogeneous process; it involves many dimensions, some changing relatively quickly, others little or not at all.

In view of the rich information offered by word associations, it is relevant to ask what are its practical implications beyond the insights produced into the nature of the change process. Does it make any difference, for instance, that the Filipinos perceive Americans as tall and themselves as short? The Swiss psychiatrist Adler has shown by numerous telling examples that people of small size are predisposed to develop inferiority complexes. Such complexes in turn are likely to influence how people relate and behave toward other people. Without accepting extreme Adlerian interpretation, it is apparent on a simple common sense basis that feeling short and considering others as big represents a contrast relationship, an awareness of being different. As some of the previous data suggest, the Filipino recruits who are new in the U.S. environment, feel dwarfed and overwhelmed by the new environment. Furthermore, it is not only in size that they see themselves in contrast to Americans but in a variety of other physical and material characteristics as well, such as skin color, hair, wealth, power. The sharper the contrast is, the more likely the Filipino is to feel isolated from the Americans. These characteristics involve primarily racial attributes and convey a sense of heightened racial awareness. Although later, after many years of service, certain physical and material dimensions of the contrast fade or disappear, the racial sensitivity of the Filipinos remains generally at a high level throughout the entire period studied.

The above example was used to illustrate that perceptual information produced by free word associations on single attributes offers sensitive indicators of such broader domains as the groups' relationship to their social milieu.

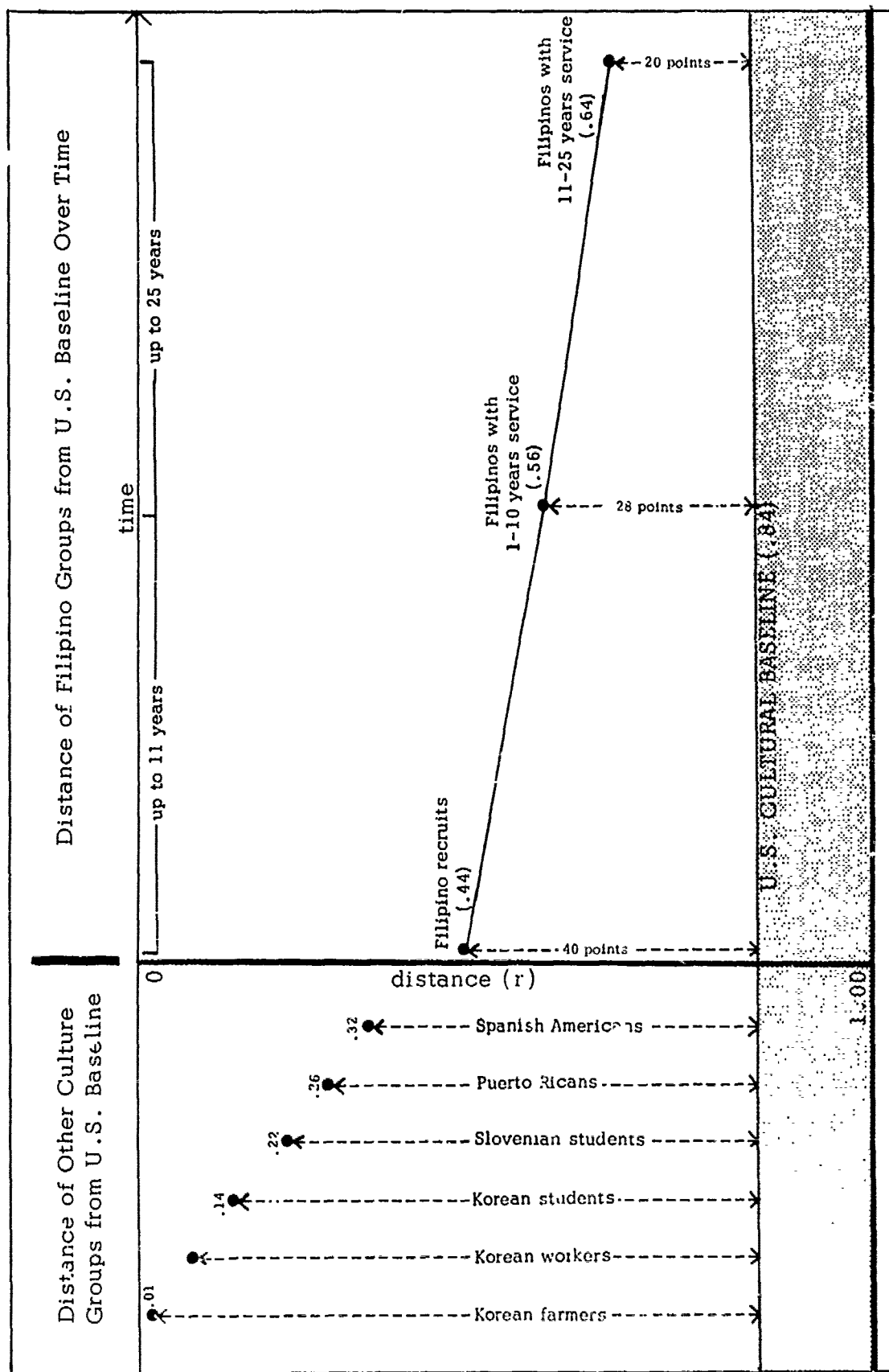
At a more generic level, the word association approach provides information on overall cultural distance and change. In the present case the association based similarity indices show the cultural distance measured between the American and Filipino recruit samples. Furthermore, a comparison of the other samples reveals how the distance changes, how the Filipinos adapt and become more similar to Americans as a function of time spent in the new environment.

To gain relevant reference points for the evaluation of Filipino cultural adaptation, it is desirable to compare the original cultural distance between Americans and Filipinos with the cultural distances measured between Americans and other culture groups---Koreans, Slovenians, Puerto Ricans. The original cultural distance can be represented by comparing American recruits with Filipino recruits, a group little affected by the American environment.

As shown in Figure 22, the Filipino recruits stand much closer to Americans than do any of the other culture groups previously studied. As mentioned earlier, this suggests that the Filipinos start the process of adaptation from a position of relative proximity which may facilitate further rapprochement. In evaluating this proximity, the Spanish-American and Puerto Rican samples offer particularly relevant reference points as they represent more or less domestic samples, groups with long historical ties to the Anglo-American culture---yet their distances are greater than those of the Filipinos.

The identification of the endpoint of the adaptation process is technically a more complex problem. As the theoretical maximum of the coefficient of similarity is 1.00, it is tempting to assume that this value would stand for a state of complete cultural adaptation. This would mean that the Filipino group with long service experiences, which showed a similarity of .64 with the comparable American group, is 36 points away from complete adaptation. Our past experiences with the similarity

CULTURAL DISTANCE AND ADAPTATION TO U.S. CULTURE



NOTE: The r values are similarity coefficients calculated between U.S. and foreign culture groups. The U.S. baseline (based on a comparison of American split-half groups) represents the maximum similarity to be expected (i.e., no psychocultural distance).

Figure 22

coefficients show, however, that this is not the case. As discussed in more detail in the context of reliability (Appendix 2), in the comparison of groups, even those representing the same population, the similarity coefficients obtained are consistently lower than the theoretical maximum.*

Previous results obtained with split-half comparisons indicated that for the sample size used in this study ($N=50-100$), .84 represents a practical maximum which may be reached at complete adaptation. As shown in Figure 22, by moving from a similarity of .45 to .64, the Filipino service groups have reached about a half-way position toward complete adaptation. Considering the wide time span covered by our samples, the results suggest that the process of adaptation is very slow, much slower than most of us would have anticipated.

The line of progression drawn in an attempt to chart the cultural adaptation represents countless component processes with occasionally highly individual tracks of development.

Elements of this adaptation, that is, changes in single images and meanings, can be traced and charted individually. Changes in these specifics ---e.g., self image, image of peers---bear on the adaptation of behavior in particular domains---e.g., interaction with peers. Differences in the mean similarity coefficients express changes measured across the board in thousands of perceptions and evaluations. Solidly founded on overt reactions (i.e., word associations), these indices offer a global measure of overall distance or adaptation.

The present investigations represent the first attempt to reconstruct cultural adaptation from cognitive and affective changes inferred from the spontaneous flow of free word associations.

*The actual values are lower partially because the groups compared are never completely homogeneous. Furthermore, the reliability of the coefficient depends to a large extent on the group size. The heterogeneity of the host environment poses a practical limit to similarity: the adaptation process cannot achieve a greater similarity than the similarity existing among the members of the group itself. In other words, the coefficient of homogeneity offers an empirical value, which constitutes a reference point, the peak of the adaptation process.

The slow, progressively decelerating course of cultural adaptation, which showed only a 20-point approximation to the U.S. baseline over a period of up to 25 years, reflects the rate of change in deeper layers of cognitive-behavioral organization. These changes are surprisingly slow compared to the relatively quick switching from native to host patterns observable in certain domains of overt behavior such as the use of American food, clothing, appliances. While both levels have considerable information value, it should be kept in mind that some of the changes in overt behavior reflect a simple accommodation to environmental pressures, a choice dictated by what is locally available and acceptable rather than a change in genuine preferences. The present investigations suggest that at deeper levels of behavioral organization the changes are much slower than found in most of the acculturation studies focused on overt behavior and that the selection of variables is likely to determine the rate of change observed by various investigators.

Finally, a comparison of native Filipino concepts and English concepts show considerable differences. While the Filipino concepts showed no noticeable changes, the English themes showed a distinct change in meaning apparently as a result of new experiences accumulated in the U.S. environment. These findings support the important role that language plays in mediating and promoting the development of a cultural frame of reference adapted to the new environment.

Parallel to these generic trends reflecting on the scope and mechanism of the acculturation process, the investigations have produced extensive information on how the Filipinos change their perceptions and attitudes in respect to specific domains and themes. A large portion of the information has potential value both for management and for training. The present volume illustrates this material only by a few examples on selected themes like NAVY and FILIPINO; information on additional themes and domains can be made available to the interested user.

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APPENDIX 1

APPROACHING CULTURE THROUGH PSYCHOLOGICAL MEANING

The approach we have developed for mapping the psychocultural characteristics of different groups relies on the operationalization of three main concepts: psychological meaning, subjective culture, and psychocultural distance.

Psychological meaning is conceived as a subjective reaction representing a fundamental unit of the individual's cognitive processes and exerting a powerful control over behavior. As Osgood (1957) puts it: "Of all the imps that inhabit the nervous system--that little black box in psychological theorizing--the one we call meaning is held by common consent to be the most elusive. Yet again by common consent of social scientists, this variable is one of the most important determinants of human behavior."

It is essential that psychological meaning not be confused with lexical meaning. In a lexical sense, the meaning of the word "drug," for instance, is its referent, a substance with medical effects. This meaning depends on linguistic convention, is subject to logical definition, and is fairly stable. The psychological meaning of "drug" depends only to a limited extent on the actual referent; it is primarily a subjective reaction which eludes logical inquiry and varies from person to person, from group to group. A Christian Scientist and a drug addict will have distinctly different psychological meanings for "drug" based on their different experiences and belief systems.

Psychological meaning is a composite reaction, what Osgood (1968) describes as a "multicomponential affair." In everyday language, for instance, we may say that an individual's meaning of "drug" includes elements of visual images (white pill), contexts of use (headache), brands (Bayer), affective reactions (bitter taste, dislike), and function (restoration of health). The salience of these cognitive and evaluative components varies. The subjective importance of each concept also varies. Within a subculture of drug addicts, "drug" will probably assume an especially dominant position; similarly, frequent references by Christian Scientists to "God" suggest an important thought category for them.

Subjective culture may be viewed as a group-specific cognitive organization, a system of representation of the universe composed of the mosaic elements

of psychological meanings. How people organize their "thought worlds"--what is related to what in their representation of the universe--depends largely on their psychological meanings, their subjective understanding. Related themes, those with similar psychological meanings (psychiatrists, mental illness, treatment), cluster together to form larger cognitive units which we call domains (e.g., the domain of "mental health"). The relationship between domains (e.g., between "mental health" and "science" or "mental health" and "religion") reflects the organization of the cognitive map each group develops in its representation of the universe. Furthermore, groups vary in the importance they assign to different domains of life. This vertical dimension of priorities is particularly important for behavior, because domains that are considered important are likely to attract more interest and represent stronger motivational forces than domains of low importance. A third important aspect of subjective culture is evaluations or attitude, whether a particular group feels positive or negative about certain aspects of life.

Psychocultural distance is conceived as the distance between two groups in respect to their cognitive organizations--their perceptions of and attitudes toward their subjective worlds. In simpler terms, we may say that psychocultural distance involves differences in the characteristic ways of thinking of people with different sociocultural backgrounds. Whichever definition we use, it is apparent that assessment of psychocultural distance requires some sort of systematic comparison between two subjective cultures, two representational systems.

As in this conceptualization psychological meanings constitute the elementary units of subjective culture, it is natural to conceive similarities and differences in psychological meanings as a major dimension of psychocultural distance. Along this line we may assume that the more difference there is between two groups in their meanings of important themes, the greater will be their distance.

It is clear that cultures assign different importance to particular themes. Such a recognition has two immediate implications at this point. First, the differential distribution of cultural priorities implies that if the comparison is made on the basis of higher-order priorities of only one culture, it will probably not cover all the important cultural priorities of the other culture; such an analysis would be likely to produce wrong estimates of the psychocultural distance between them. Thus, a systematic assessment of cultural distance should include the priorities of both cultures. Second, the assessment of each individual order of priorities becomes an important dimension of comparison. It is logical to assume that the more closely two groups are similar in their priorities, the less will be their distance.

Groups also frequently disagree in their attitudes and evaluations. It is fairly common to find differences between groups in whether they like or dislike particular people or ideas. More disagreement in attitudes and evaluations naturally leads to greater distance.

Word associations offer empirical information on each of these dimensions of the groups subjective culture. In general, word associations offer a broad and rich empirical data base on which groups can be compared. Using dominant themes and their translations as stimuli makes it possible to elicit reactions in comparable contexts. Comparability is particularly difficult to achieve in the study of cultures because a particular sign or behavior does not necessarily have the same meaning across cultures. For instance, white robes may be worn in one culture at weddings, in another at funerals. Word associations reflect natural units of cognitive organization that are relatively stable and fundamental elements of cognitive processes. Through strategic choices, it is possible to select relatively small samples of dominant themes which provide for the representation of broad domains including dozens, even hundreds, of themes. Similarly, through a strategic selection it is possible to focus on the culturally most dominant domains and disregard the many domains of lesser cultural importance, thereby reducing an apparently unmanageable task to manageable proportions.

An empirical approach to the measurement of psychocultural distance has been developed (Szalay and Bryson 1975) on the basis of this conceptualization of subjective culture.

In its general form, this approach involves a three-step data collection procedure (Szalay and Maday 1973, Szalay and Bryson 1973) consisting of (a) assessment of the high-priority cultural domains; (b) identification of themes that are culturally representative of these high-priority domains; (c) development of a master stimulus list containing the high-priority domains and their themes. The master stimulus list, which is translated into each group's native language if necessary, is used to elicit extensive reactions from the culture groups in a broad variety of contexts of comparable importance to each group.

It is important to select themes that represent the subjective priorities of all groups involved to a similar extent. Group A can be studied in terms of its own priorities, and it can also be explored how its highest-priority domains and themes relate to the same themes and domains as perceived, understood, and evaluated by Group B--for which these same themes may or may not have similarly high priority. Nonetheless, such a comparison will not show how the Groups A and B relate to each other on equal terms, but merely in terms of the domains and themes dominant to Group A. A similar bias may be present if the dominant themes of Group B serve as the basis of determining similarities. To eliminate biased selection, it is necessary to combine the high-priority domains and themes identified for each group, eliminate duplicate items, and then measure the similarity of the two groups

in terms of themes that are dominant and representative for both groups.

The subjective cultures of the ethnic-cultural groups are compared along the three major dimensions mentioned earlier: perceptions or meanings, priorities, and evaluations (attitudes).

Perceptions, Meanings. Content analysis of each group's associative responses is used to reconstruct main components of the psychological meaning of the stimulus theme. The findings on the example of EDUCATION, as well as on numerous other themes discussed in this report, show that word associations obtained in continued association tasks describe the meaning of the stimulus theme in terms of salient components. More information on this analytical procedure can be found in Appendix 2, page 13.

Priorities. Each group's subjective priorities are inferred from the dominance score, a measure based on the total score of the responses produced by members of a culture group. It expresses the importance of the stimulus theme for the various groups studied. Priorities can also be explored by examining the responses most frequently given by a particular group, disregarding the context in which they were elicited. The dominance measure is described and illustrated in Appendix 2, page 11.

Evaluations. In the assessment of evaluations of particular themes, there are two main strategies available. The inferential method working through associations is described in Appendix 2, page 19. The direct method used in this study involves asking the respondent to evaluate whether a particular theme has a positive or negative connotation. A seven-unit scale ranging from +3 to -3 is used to express their evaluation.

A fourth dimension is affinity structure--how groups organize their subjective environments. For example, how similar are two groups in the relationship they see between COMPETITION and MENTAL HEALTH? The perceived relationship between themes is measured by the index of associative affinity (described in Appendix 2). Because of the technical and lengthy nature of the affinity measure it has not been included in this report.

To measure the psychocultural distance between groups in these different dimensions, we rely mainly on the Pearson's r correlation coefficient. A high correlation implies greater similarity, a low correlation greater distance.

Similarity in meaning is inferred from the correlation calculated between the response distributions obtained from two culture groups to the same stimulus theme. The use of this measure is based on the rationale that the more similar the two groups' meanings are, the more similar their response distributions will be. That is, close similarity would be assumed if the most frequently mentioned responses for one group are also frequently given by the other, and less popular responses for one group are also less

common for the other. The calculation and uses of this measure, which in this context we call the coefficient of intergroup similarity, are discussed with several examples in Appendix 2, page 17.

Psychocultural distance in the perceptual dimension is determined from the average similarity coefficient for a particular domain or for the overall subjective culture based on all domains studied.

Distance between groups in the dimension of priorities is determined by a correlation of the respective dominance scores for the groups compared. A high correlation indicates that what is important for one group is also important for the other. The lower the correlation the less the groups agree on what is important; in other words, the greater is their distance in this dimension.

Distance in attitudes is based on a correlation of the evaluation (connotation) scores. The lower the correlation the less the groups agree in how they evaluate particular elements of their subjective worlds.

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APPENDIX 2

ASSESSING MEANINGS AND CULTURE THROUGH WORD ASSOCIATIONS

The central assumption fundamental to this research strategy is that a group's psychological meaning of a particular theme may be reconstructed from their word associations to the theme. Ever since Noble (1952) introduced his verbal-association-based measure of meaningfulness, investigators have been exploring various ways of using verbal associations for the assessment of various dimensions of psychological meaning. Especially important in this field are the investigations of Deese (1962, 1965). The method we have developed for a systematic assessment of subjective culture is called Associative Group Analysis (AGA). Previous investigations have shown that this approach can be used to draw inferences about such important variables as cultural meanings (Szalay and Brent 1967), attitudes (Szalay, Windle, and Lysne 1970), and value orientations (Szalay, Brent, and Lysne 1968). The AGA method has proved capable of measuring psychological meanings with an efficiency comparable to that of widely used contemporary methods--similarity ratings, substitution tasks, and the word-adapted semantic differential (Szalay and Bryson 1972).

In contrast to traditional word-association approaches, in which the subjects are asked to give a single response for each stimulus word, the AGA method asks the subjects to give as many responses as they can think of in one minute. The technique is referred to as "continued free verbal association." An important advantage of the continued-association task is that it can elicit response material with sufficiently broad foundation without using large subject populations--a requirement that frequently makes socially relevant studies impractical. AGA usually employs samples of 50-100 subjects, ideally half male and half female. The requirements for sampling are fundamentally the same as in any other data collection aiming at generalizable results.

The standard AGA testing conditions of group testing, a written form of administration, and absence of time pressure help promote spontaneous meaning-mediated responses. Because the testing situation is as unstructured as possible, the subjects can focus on the meaning of the stimulus and, by listing the various related responses, reveal the main aspects and elements of the stimulus meaning. Because individual subjects remain anonymous (demographic data being obtained by a brief questionnaire that carries the same code number as the subject's test slips), the likelihood of bias in the form of acquiescence, considerations of social desirability, etc., is reduced, and a variety of emotion-laden issues is opened up to objective inquiry.

The subjects receive the following instructions, given in their native language:

This is one of the studies in verbal behavior. This particular experiment is on free association.

You will find a word printed in capital letters down the side of each slip. Reading this stimulus word will make you think of other associated words (objects, ideas, issues, etc.). You are asked to write the words as they occur to you on the empty lines. Write as many response words as you think of in one minute. The experimenter will indicate the end of each minute.

It is important that in giving your responses you always take the given stimulus word into consideration. For example, if the stimulus word was TABLE and your answer was writing, in giving the subsequent responses you have to refer back to TABLE and avoid chain responses (writing, pen, ink, blue, ocean, sail, etc.).

Please work without hurrying, but do your best to give us as many answers as possible. Do not select your responses, but put them down in sequence as they occur to you.

The stimulus words are presented on randomly sequenced cards (see Figure 1).

Each person produces several responses to each stimulus theme. The individual responses from all the subjects are then tallied into a group response list for each stimulus. The frequency distributions of the words obtained are based on several hundred responses.

Instead of using a simple frequency, each response is given a weight determined by its rank order. These individual weights are summed to obtain a group score. The weights assigned to individual responses, beginning with the first in the sequence, are 6, 5, 4, 3, 3, 3, 3, 2, 2, 1, 1, These weights were empirically derived from the differential stability of each rank as assessed by the test-retest method in previous investigations (Szalay and Brent 1967).

The analysis is limited to responses given by two or more people, since we conceptualize group meaning as an aggregate of the shared meaning elements. Dropping the idiosyncratic responses helps us to concentrate on the more stable, shared responses and simplifies the data processing and analysis.

If we review the associations produced by members of our own culture group, the responses appear to be just plain common sense, and we tend to feel that everybody would produce similar responses. How culture-

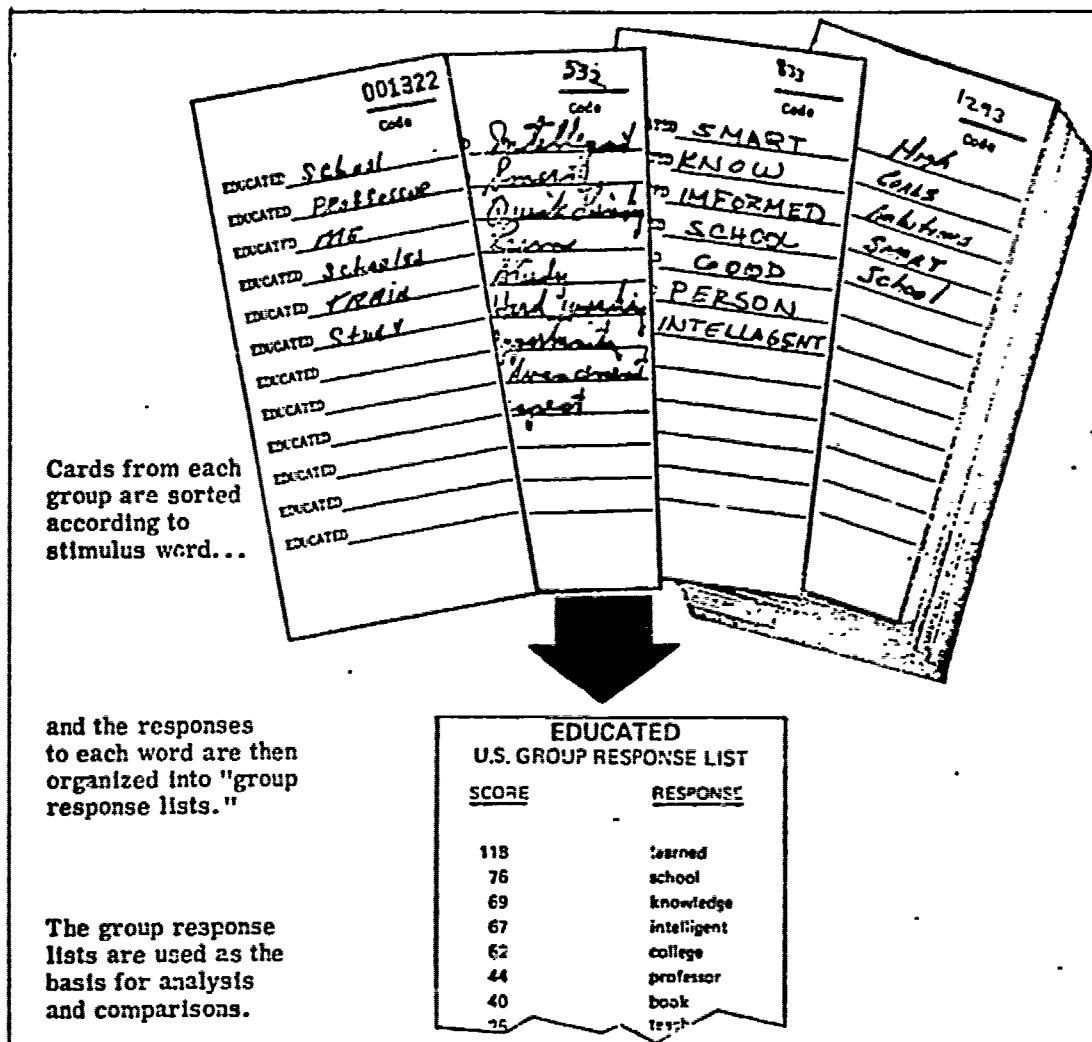


Figure 1. Formation of group response lists from individual associations.

bound this impression is becomes apparent if we compare associations obtained from groups with different cultural backgrounds. A comparison of U.S. and Spanish-American responses to the stimulus EDUCATED (Table 1), for instance, shows that for the Spanish-American group polite is the most frequent response and family and manners are also high-frequency responses, while none of these is mentioned by the U.S. group. It may not be necessary to point out that the Spanish-American responses seem about as commonsense to the Spanish-American group as the U.S. responses appear to us.

A more concise and more articulate expression of the group meaning is obtained by grouping the responses into semantically related word clusters. Judges with backgrounds comparable to those of the groups from which the responses were obtained consider the content of responses and group them into clusters. This task involves a type of content analysis that was tested for agreement among six judges and showed an interjudge reliability (Pearson's r) of .7 across categories.

For instance, in the context of the theme EDUCATED, responses dealing with intellectual qualities can be grouped together, and by using the two highest-scoring responses we may label this category "Intelligent, Smart." This cluster of closely related responses represents a component of the psychological meaning of EDUCATED, a component on which the two groups--U.S. and Spanish-American--can be meaningfully compared. The salience of the response categories (meaning components) is expressed by the sum of the individual response scores. The category score thus expresses the importance of the category for the culture group. The main content categories obtained by this analysis define the meaning of the stimulus in terms of the main components characteristic of the group's understanding (see Table 2).

A particularly clear illustration is offered by word associations to pictures since it is easy to see what is actually there and what is subjectively projected by the respondents. The examples in Tables 3 and 4 present data obtained in a comparative study of U.S. and Puerto Rican student groups (Szalay and Bryson 1975).

The way the relatively simple scene of two girls lying and sitting on a bed (Table 3) is viewed shows some characteristic perceptual trends. The largest single Puerto Rican component of interpretation, "Family Members, Children," shows a particularly strong disposition to view the scene in the framework of family ties, projecting sibling or parent-child relationships. The American group does not see the picture in the context of family, being more inclined to view it in the framework of a more casual relationship of "Babysitter, Roommate." Accordingly, the Americans see the place more as a bedroom or dormitory. They also register more visible details such as legs and body. The Puerto Ricans project more "Positive Feelings"—happiness,

TABLE 1
GROUP RESPONSE LISTS TO EDUCATED FOR
U.S. AND SPANISH-AMERICAN GROUPS

U.S. Group		Spanish-American Group	
Response	Score	Response	Score
learned	118	polite	80
school	76	college	77
knowledge	69	educated	72
intelligent	67	study, ious	70
college	62	university	43
professor	44	family	30
book	40	learned	29
teacher	26	school	27
wise, dom	26	manners	25
people, person	23	amiable	24
smart	22	education	20
graduate	21	friend, ly, ship	20
man	21	intelligent	19
scholarly	21	know	19
respect	17	professor	19
school	17	student	19
well-rounded	17	teacher	19
erudite	15	decent	18
guess	14	knowledge	18
study	13	social, able	18
worldly	13	book	16
good	12	fine, ness	15
inteller	12	parents	15
knowledgeable	12	father	14
student	12	habit	14
scholar	11	wise, dom	14
degree	10	example	12
sophistication	10	good	12
teach	10	professional	12
work	10	pupil	12
bright	9	culture	11
interesting	9	cultivated	11
literate	9	well-educated	11
me	9	teach	10
money	9	correct	9
sage	9	training, ed	9
cultured	8	gentlemanly	8
diploma	8	home	8
university	8	agreeable	7
helpful	7	mother	7
know	7	understanding	6
sense, common	7	society	6
development	6	manner	6
thoughtful	6	children	6
informative	6	trip	5
progress	5	sacrifice	5
lectures	5	art	4
satisfaction	5	doctor	4
reading, well read	5	environment	4
status	4	language	3
courses	4		942
Johnson (Pres.)	4		
ideas, many	3		
	993		

TABLE 2

EDUCATED: MAIN MEANING COMPONENTS FOR
U.S. AND SPANISH-AMERICAN GROUPS

Meaning Component	Group Score	
	U.S.	Spanish-American
"Family, Home"	--	80
"Educators, Teachers"	81	50
"Other Persons, People"	65	31
"School Features"	267	243
"Knowledge"	123	51
"Learned, Educated"	254	152
"Intelligent, Smart"	126	25
"Polite, Decent"	36	254
"Miscellaneous"	41	56
Total	993	942

pleasure. Both groups assume "Love, Friendship" as the emotional background; Puerto Ricans see more love and affection, Americans primarily friendship. The Puerto Ricans' reactions do not reflect "Race," i.e., racial differences, while the U.S. responses make some direct references to the racial background of the girls. Furthermore, the lack of any U.S. tendency to view the two girls as sisters, family members, may also be influenced by the perceived facial difference. The attention paid by the two groups to sexual identity, "Male, Female," is about the same.

In the second example shown in Table 4 the Puerto Rican group shows a strong disposition to see the picture as representing a family scene involving married people and home. The U.S. group is more predisposed to see the scene as involving people of opposite sex, with little assumption that they are married. The emphasis on the emotional background of the scene—"Love, Friendship"—is also a stronger Puerto Rican trend. The main thrust of the American interpretation involves "Romance, Lovers." The Puerto Ricans are inclined to see engagement and a boyfriend-girlfriend relationship, which in the Puerto Rican cultural context is a rather formal one and is expected to lead to marriage. The American and Puerto Rican observations show considerable agreement in describing the scene as dinner or meal. There is also agreement on the visible activities of talking and listening. A perception of the scene as reminiscent of Elvis Presley and the 1950s is strong and uniquely American. The Puerto Ricans pay little attention to the candlelight; some are inclined to view the candle as a light bulb.

TABLE 3

PR		US	
80		138	
BED, ROOM, CAMP			
bed, -s, -room	37	95	
house	6		
room	28	13	
camp, overnight-	-	12	
dorm	-	10	
sleep	9	8	
77		93	
MALE, FEMALE SEX ROLES			
boys	-	6	
female	-	14	
girl, -s, 2-	18	55	
woman	45	-	
lady	-	6	
sex, -y	14	12	
74		88	
FUN, RELAXATION			
fun	6	-	
laughing, giggles	-	16	
smile, ing	16	15	
play, ing	10	20	
relax, -ation, -ing	-	18	
rest, ing	33	-	
lounging	-	6	
talking, conversation	9	13	
-		89	
LEGS, BODY			
leg, -s	-	76	
body	-	6	
skirt	-	7	
47		78	
PEOPLE: BABYSITTER, ROOMMATE			
babysitter	-	32	
roommates	-	15	
teenager	-	11	
teacher	-	6	
persons	6	-	
two	-	8	
young, youth	41	6	
-		42	
RACE			
black	-	27	
white	-	15	



MAIN COMPONENTS OF PERCEPTION AND EVALUATION BY PUERTO RICAN AND AMERICAN STUDENTS

	PR%	US%
BED, ROOM, CAMP	11	19
MALE, FEMALE SEX ROLES	11	13
FUN, RELAXATION	10	12
LEGS, BODY	-	12
PEOPLE: BABYSITTER, ROOMMATE	5	11
RACE	-	6
NEGATIVE FEELINGS	1	2
POSITIVE FEELINGS	9	5
LOVE, FRIENDSHIP	12	9
FAMILY MEMBERS, CHILDREN	34	4
MISCELLANEOUS	4	6
TOTAL SCORES		
	PR = 720	
	US = 716	

FAMILY MEMBERS, CHILDREN

babies	6	
brother	-	
sister, -s	17	
brothers and sisters	58	
child, -ren, -hood	112	
family	8	
home	13	
kids	-	
marriage	11	
mother	18	
mother and children	6	

LOVE, FRIENDSHIP

affection	10	
care	-	
companionship	10	
friends, -ship	24	
love	21	
fraternity	10	
together	-	
union	8	

POSITIVE FEELINGS

happy, -ness	58	
pleasure	10	

NEGATIVE FEELINGS

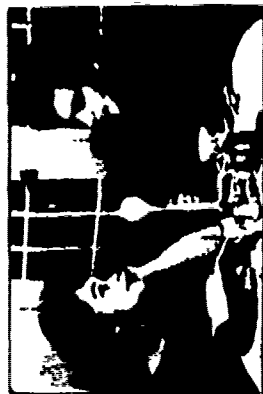
hurt	-	
sadness	10	
scared	-	

MISCELLANEOUS

think, -ing	6	
look, -ing	7	
beauty	-	
tools	6	
desire	7	
social	-	
strange	-	
flirt	6	
compromising	-	
picture distortion	-	
indistinguishable	-	

TABLE 4

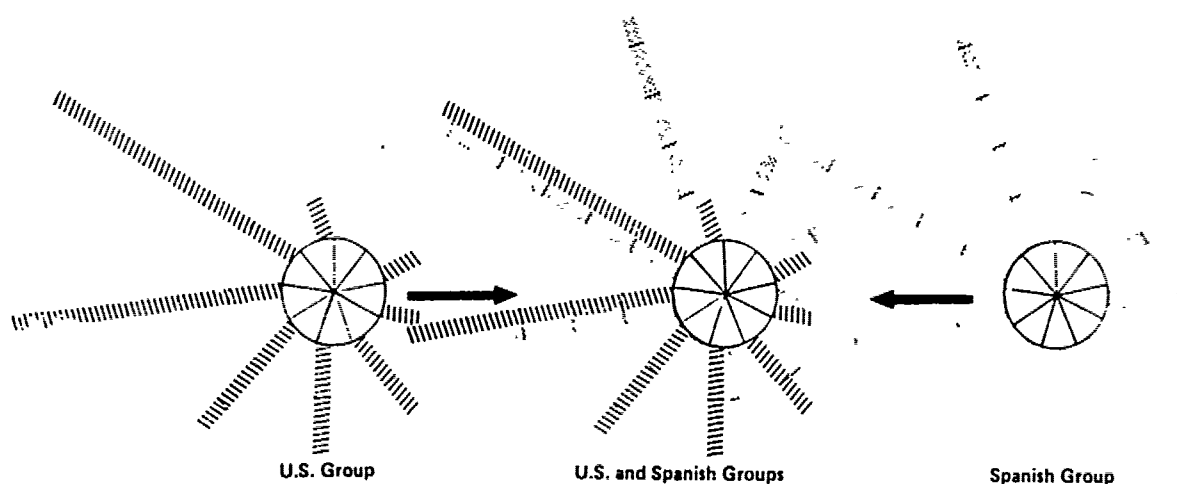
ROMANCE, LOVERS		PR	US
boyfriend and girl's hand		109	165
lovers		44	—
couple		18	19
romance, etc		11	21
flirting		—	71
moonbeams		—	6
infatuation		—	6
sex		6	9
date		14	7
dreamboat		—	14
engagement		16	6
alone		—	6
ELVIS, 1950s		—	101
Elvis, Presley		—	38
Fabian		—	12
Nelson		—	6
greaser		—	99
slippy		—	6
corny		—	6
posed		—	6
1950s		—	12
schmaltzy		—	6
MALE, FEMALE SEX ROLES		75	93
boy		—	17
boyfriend		—	6
male		—	9
man		39	21
female		—	11
girl		—	10
woman *		36	19
CANDLELIGHT		30	93
candle, s., light		14	93
light, bulb		16	—
TALK, LISTEN		55	32
conversation		27	6
talk, ing		—	26
listen		6	—
interview		6	—
dialogue		16	—
ROMANCE, LOVERS		13	20
ELVIS, 1950s		—	11
MALE, FEMALE SEX ROLES		9	11
CANDLELIGHT		4	11
TALK, LISTEN		6	4
MISCELLANEOUS		5	4
HAPPINESS, FUN		4	2
MARRIAGE, HOME		16	3
LOVE, FRIENDSHIP		20	11
DINNER, FOOD		23	21
TOTAL SCORES			
PR = 856			
US = 84*			
* major can mean woman or wife			
DINNER, FOOD		PR	US
restaurant		197	181
meal, -s		17	—
dinner		110	—
breakfast		—	122
snack		35	9
midnight dinner		6	—
food		—	6
eat, -ing		—	14
wine		6	9
get drunk		—	14
dine		6	—
coffee		—	7
cup		8	—
—		7	—
LOVE, FRIENDSHIP		174	96
love		112	96
friendship		26	—
understanding		18	—
affection		18	—
MARRIAGE, HOME		139	28
family		—	8
spouses		14	—
married, -age		75	8
mother		7	—
home		43	12
HAPPINESS, FUN		33	19
happy, -ness		21	7
enjoyable		—	6
party		6	—
fun		—	6
tranquility		6	—
MISCELLANEOUS		44	36
window		6	—
table		9	—
relationship		—	6
movie /		—	18
house		10	—
God		6	—
panting		—	6
night		13	—
haze		—	6

MAIN COMPONENTS OF PERCEPTION AND EVALUATION
BY PUERTO RICAN AND AMERICAN STUDENTS

That different reactions were obtained to the same pictures suggests that the two groups did not see the same things: they paid attention to different details, saw different relationships between the people, observed different events, and anticipated different consequences. The U.S.-Puerto Rican study, which included several dozen picture and word stimuli, showed a great deal of consistency in what each group observed and what they ignored.

Another way to present these findings is the semantograph (Figure 2). It shows the main categories of group meaning by using radially arranged bars. The dotted bars represent the main components of Spanish-American interpretation and the striped bars the main components of U.S. interpretation. Where the bars are equal in length, substantial agreement exists between U.S. and Spanish-American responses. The bars are arbitrarily arranged so that those on the left of the semantograph show meaning components especially strong (salient) for the U.S. group and those on the right show meaning components especially strong for the Spanish-American group. This presentation is designed to help the reader to recognize components on which his own group and the other culture group are in agreement or disagreement.

Effective communication requires that we address members of other cultures on components that are salient to them. Thus, in communicating with Spanish-speaking groups on education, components shown by shaded bars on the right side--politeness, family background, etc.--can be expected to elicit interest and understanding. For those familiar with the cultural backgrounds of the groups producing the associations, it is apparent that the high-scoring responses reflect their salient characteristics. The response polite from the Spanish-American group, for example, reflects the Spanish emphasis on formal, polite behavior. With a deeper knowledge of the cultural background, all the responses become explicable: that is, they can be traced to the religious-moral philosophy, history, life conditions, and contemporary experiences of the respective culture groups. These trends of cultural interpretation, of course, are not limited to the single concept of EDUCATED; rather, they reflect general cultural experiences, life conditions, and philosophies characteristic of the two groups compared.



Main Meaning Components for U.S. and Spanish Groups
EDUCATED

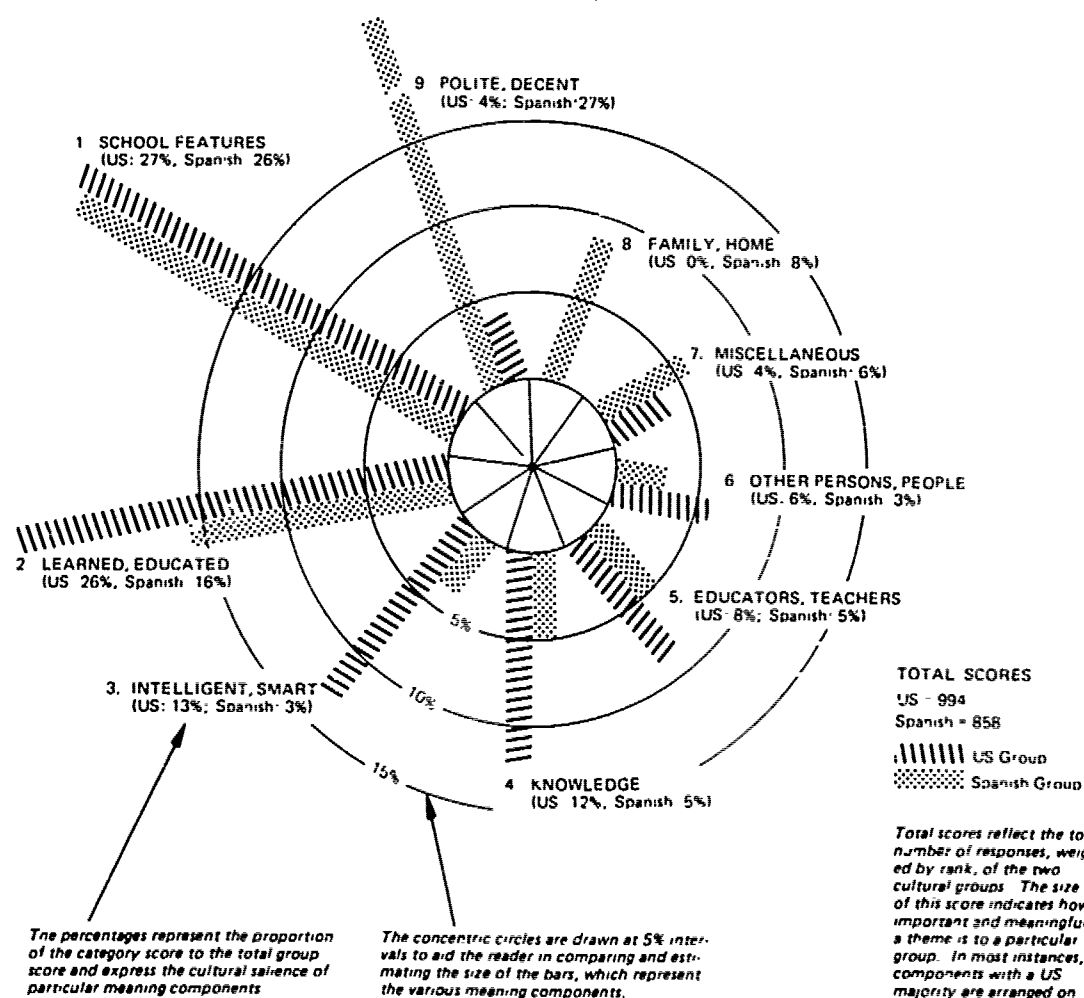


Figure 2. A Visual Representation of Cultural Meanings — THE SEMANTOGRAPH

ASSESSMENT OF THE RELATIVE DOMINANCE OF THEMES AND DOMAINS

Various cultural groups are frequently characterized by their hierarchy of priorities. Americans are commonly described, for instance, as being pre-occupied with material comfort, technical performance, and scientific progress; Spaniards are said to focus on family traditions, personal friendship, and spiritual values. These traditional stereotypes are fading in this age of rapid change and increased cross-cultural contacts, but the assessment of cultural priorities is still a timely and practical requirement.

The psychological priorities characteristic of a particular group or culture can be inferred from dominance scores. The dominance score is a modified version of Noble's (1952) "meaningfulness" measure.* The dominance score is based on the number of responses produced in common by the members of the group and weighted by the sequence in which they were produced. Responses in common are those associations that were given by at least two members of the group. The weighting factors are empirically determined for each response. The dominance scores indicate how meaningful and how important a theme (stimulus word) is for a particular group. The group dominance score of a word representing a problem or topic offers an empirical measure expressing the salience of the problem for a particular group. Such data become especially significant when dominance scores obtained for one group are compared with dominance scores obtained for another group. Previous data (Szalay, 1967) indicate that dominance scores vary greatly for different words and cultures and provide a sensitive measure of the group-specific or culture-specific meaningfulness or dominance of a particular word.

Group dominance scores can reveal group-specific priorities not only for single issues, but also for clusters of words making up larger domains. Since the scores vary with the particular words chosen, to obtain generalizable results a systematic selection of stimulus words from the domain to be studied is an important requirement (see Szalay and Maday, 1973).

*Noble (1952) first demonstrated that the number of associations given by a person in a continued association task of one minute provides a measure of "meaningfulness" that is highly correlated with the person's familiarity with the word and its meaning.

The example shown in Table 5 is taken from a comparative study of Black and White blue-collar samples. From the fifteen domains included in the study, the table includes the four on which the Black-White differences were the largest. The two domains on the left side of the table, "ISMS" and "NATION", are those on which the Whites scored higher than the Blacks. On the right side of the table "SOCIAL PROBLEMS" and "NEEDS" are domains on which the Black group scored higher.

TABLE 5
DOMINANCE SCORES BY BLACK AND WHITE
URBAN BLUE-COLLAR WORKERS

Domain and Themes	White	Black	Difference	Domain and Themes	White	Black	Difference
ISMS				SOCIAL PROBLEMS			
DEMOCRACY	636	449		SOCIETY (U.S.)	316	342	
SOCIALISM	396	280		SOCIAL CLASS	402	475	
CAPITALISM	362	298		SOC. JUSTICE	376	378	
COMMUNISM	733	502		SOC. PROGRESS	260	334	
\bar{X}	532	382	150	\bar{X}	338	382	-44
NATION				NEEDS			
NATION	661	591		GOAL	514	581	
U.S.	877	765		EXPECTATION	236	298	
PATRIOTISM	508	222		DESIRE	621	701	
AMERICANS	605	648		VALUABLE	832	876	
\bar{X}	663	556	107	\bar{X}	551	614	-63

ASSESSMENT OF MEANING BY ITS MAIN COMPONENTS

The main meaning components characteristic for the groups studied can be identified by using the group response lists. The group response lists contain a rich variety of responses, each reflecting a different mosaic element of the total meaning. The responses are organized into a more manageable form by grouping responses with similar content together. Using these response categories helps to identify the main components of meaning and to express the group's meaning in a simple and concise form.

The method developed for the assessment of the primary meaning components relies on a content analysis of responses performed by two or more independent judges (Szalay and Brent, 1967). The inter-judge reliability calculated by correlations among four judges across categories averaged .70. In the process of categorization some oversimplifications and distortions are inescapable, but this technique does help to make the information inherent in the primary data more communicable. To establish procedures for categorization that minimize distortions and personal biases the coders who perform the categorization are selected from persons with a background and frame of reference by and large similar to that of the members of the group tested. If Korean and American groups are to be tested, the coders would be a Korean and an American. Independently from each other, they receive the list of all responses to the particular stimulus word (the Korean responses translated into English).

After the coders study the response list thoroughly, they choose the main clusters into which the responses fall by their more or less similar relationships to the stimulus word. They choose eight to sixteen categories that they feel subsume all the responses in meaningful groupings relevant to the stimulus word, and they assign the responses to these categories. In this way the coders produce a tentative set of categories that in their opinion would be suitable for the categorization of the responses.

The categories may be of lower or higher generality, more concrete or more abstract; but they should be simple, not very abstract, and should be at the same level of generality. It is important to choose clearly different, well-delimited categories that do not overlap. It is necessary to choose between alternative possible

categories: some will fit into the total system of categories better than others; some will lead to better communication than others. Responses that do not seem to fit into any of the categories are put into a miscellaneous category. Responses that may be assigned with equal justification to two or more categories are recorded for further discussion. The end result is a preliminary categorization for each cultural group tests.

In order to develop a single category system, the coders meet with a senior researcher to present their categories and to discuss their agreements and disagreements. The categories that are identical may be accepted as final. Where there are discrepant categories, three solutions are possible: new alternative categories, category combinations at a higher level of abstraction, or complementary categories. Although there is not always a close equivalence of categories, the final categories are selected to highlight the most characteristic aspects of the two (or more) cultural groups' responses to the stimulus word. This method maintains comparability of results in the analysis of the responses from the different cultural population samples. After the category system is final, a last check is required to make sure that all the responses are included and that they have their proper response scores.

The categories and category scores present a class or logical set of data from which the central meaning of the stimulus word may be deduced, either directly or through advisors or background literature on the culture. Certain response categories are directly informative. For example, the responses in the various food categories elicited by the stimulus words HUNGRY and TO EAT reflect the main items of the group's diet. The responses in the beverage categories elicited by THIRSTY and TO DRINK reflect the relative importance of the principal liquids imbibed. In other instances, the role of the stimulus word in providing the context for the responses becomes more important. In the context of the stimulus word POLITICS, responses of names of countries imply a concern with foreign policy, and the frequent mention of specific countries reflects the relative importance of these in foreign relations. In the context of the stimulus word ANCESTORS, the frequent mention of specific countries reflects the importance of these countries as main sources of immigration. For the stimulus word HUNGRY, a high score for responses in such categories as foreign countries and foreign geographic locations implies that the stimulus word represents a remote issue.

Other types of categories are less direct in their indications. High response scores in categories dealing with pain, sickness, or sufferings of various kinds are indications of a negative attitude or unpleasant experiences associated with the stimulus concept. Categories dealing with fun and entertainment or positive evaluative remarks may be considered as a sign of approval for, or attraction to, the stimulus concept.

2

Table 6 presents the meaning of the stimulus word HUNGRY for three cultural groups. The list contains responses dealing with food, persons, nations, and the like. When the responses are grouped into relevant categories, the categories suggest the meaning composition of the stimulus word. The meaning of the stimulus word HUNGRY can then be explored in terms of the relevant categories of responses and their relative score proportions. For example, the U. S. group yields a total score of 327 for the FOOD, VARIETIES AND INGREDIENTS category; a score of 36 for the MEAL category; and a score of 76 for the POOR, BEGGAR category. The Korean group scores 250 for FOOD, VARIETIES AND INGREDIENTS; 7 on MEAL; and 193 for POOR, BEGGAR. The highest score for the U. S. group was on the FOOD, VARIETIES AND INGREDIENTS category; the same was true for the Korean group. The highest score for the Colombian group was on the DRIVE STATES category.

After reviewing the response scores to these words in terms of the main categories, attention may be given to finer breakdowns. The category FOOD, VARIETIES AND INGREDIENTS is composed of any type of food response and can be grouped into subcategories such as MEAT, DRINKS, and RICE. Cultural experts indicate that the proportions of responses reflect cultural priorities. In this case, the subcategories for the various cultural groups reflect the characteristic composition of the cultural groups' diet. For example, the Korean group receives a high score for RICE, the U. S. group a very much lower score, and the Colombian group has no responses in this subcategory at all.

The high level of correspondence found between associative data and cultural reality for such concrete stimulus words as HUNGRY makes it possible to accept the results obtained for such abstract stimuli as SOCIALISM or SOCIETY. The high culture-specificity and the consistency of patterns suggest that associative response material obtained from cultural groups and submitted to appropriate categorizations provides reliable information about the culture-specific associative meaning content of stimulus words.

TABLE 6
RESPONSE CATEGORIES AND SCORES FOR THE STIMULUS WORD HUNGRY

Response Category	Score		
	U. S. Group	Korean Group	Colombian Group
Food, varieties and ingredients			
Food in general (food)*	226	51	77
Rice (cooked rice)	13	161	0
Meat (steak)	36	16	20
Dessert (cake)	18	0	13
Other nonrice foods (bread)	28	20	46
Drinks (water, milk)	6	2	9
Total	327	250	165
Meal, general and in particular (meal, dinner)	36	7	120
Persons, people (man, people)	85	192	42
Poor, beggar (poor)	76	193	175
Characteristics of beggars (ragged)	0	16	32
Compassionate characteristics (sympathy, pitiful)	13	49	0
Political, social, and economic situations (war)	54	110	95
Help, relief (CARE)	23	6	6
Places (orphanage)	8	65	41
Animals (dog, cow)		11	21
Countries (Hungary, Brazil)	39	0	6
Negative feelings (suffering, desperate)	113	115	161
Positive feelings (strength, satisfaction)	51	15	32
Drive states (famished, thirst)	168	63	177
Body and parts (mouth)	63	24	12
Eating and consumption (eat, swallow)	101	16	20
Time (always, now)	41	30	6
Miscellaneous	150	84	107
Total	1,348	1,240	1,218

*In this table examples of responses are in parentheses.

ASSESSMENT OF THE DEGREE OF SIMILARITIES AND DIFFERENCES

Without considering the actual nature of differences, one may ask a general question—to what extent do two groups (for example, Americans and Koreans) differ in their meaning of a particular theme (for example, SOCIETY)?

Free verbal associations may offer an empirical answer to this question, based on the principle that the closer the agreement between the associations of two groups on a particular theme, the more closely similar their meanings are. Close agreement in this context refers to close similarity in the distribution of associations: in other words, the responses obtained with high frequency from one group will also be obtained with high frequency from the other group; similarly, the responses produced with low frequency by one group will also have low frequency for the other group.

For a quantitative expression of this similarity, Pearson's product-moment correlation can be used. The scores for the same (translation equivalent) responses from the two groups represent the pairs of observations (x, y) used in this calculation. N represents the number of pairs of observations, that is, the number of word responses used in the calculation of a particular coefficient. This method requires literal agreement; it does not take into account semantically closely related responses such as home and homely or synonyms such as house and building. Consequently, this measure is bound to underestimate the actual level of similarity. Because this bias is likely to be the same regardless of the words used, it does not interfere with the utility of the coefficient to provide a valid estimate of the relative level of semantic differences. The coefficients give a global measure, expressing merely the level of similarities and differences without elaborating on the semantic components on which they are based.

An example can again be taken from the comparative study of Black and White blue-collar samples. From the fifteen domains studied, the first two shown in Table 7, "EDUCATION" and "FAMILY", are those on which the Black and White groups showed the greatest similarity, while on the last two, "NEEDS" and "SOCIAL PROBLEMS", they showed the least similarity.

TABLE 7

**INTERGROUP SIMILARITY OF THEMES
BETWEEN BLACK AND WHITE SAMPLES**

DOMAIN	THEME	γ	DOMAIN	THEME	γ
EDUCATION	School	.90	NEEDS	Goal	.38
	Knowledge	.88		Expectation	-.47
	Educated	.92		Desire	.76
	To learn	.79		Valuable	.90
		$\bar{X}=.88$			$\bar{X}=.53$
FAMILY	Father	.80	SOCIAL PROBLEMS	Society (U.S.)	.38
	Mother	.92		Social class	.50
	Family	.84		Soc. justice	.15
	Home	.79		Soc. progress	-.04
		$\bar{X}=.84$			$\bar{X}=.25$

ASSESSMENT OF ATTITUDES

Attitudinal inferences are derived from the distribution of associative responses with positive, negative, and neutral connotation. Based on empirical evidence (Staats and Staats, 1959) that the evaluative content of associative responses is a valid indicator of the evaluative content of the stimulus word, a simple attitude index was developed to express the relative dominance of responses with positive or negative connotations (Szalay et al., 1970). First, the proportions of positive and negative categories are assessed by two independent judges who place the associative responses into positive, negative, and neutral groups. (In previous experiments this grouping task was performed with an interjudge agreement of .93 measured by product-moment correlation across categories.) Next, using the total response score for each of the three groupings, an index of evaluative dominance was calculated by the following formula:

$$EDI = \frac{\sum \text{scores of positive responses} - \sum \text{scores of negative responses}}{\sum \text{scores of all responses}} \times 100$$

Based on this formula, group indices are obtained on each stimulus for each group. The distance between groups in their evaluations is measured by comparing EDI scores using Pearson's r coefficient.

The direct method for assessing attitudes, which was used in this study, involves asking the respondents to give a general evaluation of each stimulus word after performing the verbal association task. To express whether the words mean something positive, negative, or neutral, they use the following scale:

- 3 - strongly positive, favorable connotation
- 2 - quite positive, favorable connotation
- 1 - slightly positive, favorable connotation
- 0 - neutral or ambivalent feeling tones
- 1 - slightly negative connotation
- 2 - quite negative connotation
- 3 - strongly negative connotation

A mean group attitude score is obtained for each stimulus word. Distance in evaluations is then measured by Pearson's r coefficient comparing two groups across stimulus words.

ASSESSMENT OF THE AFFINITY STRUCTURE

Measures of meaning similarity have considerable potential utility in attempts to assess people's characteristic world view and to map their characteristic perceptions and interpretations of their environment. These maps show how particular groups organize and interrelate elements of their environment. They are informative in solid empirical terms about the subjective images that people develop about their particular cultural environment.

Similar concepts based on various theoretical positions are already in use: overlap coefficient (Deese, 1962); verbal relatedness (Garskof and Houston, 1963); mutual frequency (Cofer, 1957); co-occurrence measure (Flavell, 1959); and measure of stimulus equivalence (Bousfield, Whitmarsh, and Danick, 1958). These concepts, however, use single-word associative responses, rather than continued associations.

The similarity measure used with the AGA method is based on the concept of associative affinity, which is defined as the shared associative meaning of stimulus words as measured by the number of associations produced in common to these words (Szalay, 1965). Associative affinity indicates which words are related by a group to which other words and to what extent. The degree of relationship among these elements of a group's subjective world is an important dimension of their cognitive organization.

Interword associative affinity indexes measure the similarity in meaning of one stimulus word to another for a particular group. In calculating the affinity or relatedness of stimulus word A to stimulus word B for one group, the weighted scores of responses in common elicited by A and by B are taken into consideration and thus take into account differences in importance as seen in the order of emission. (In the following formulas the arrow signifies direction of relationship.)

$$\frac{\begin{array}{c} \text{score for responses + score for direct elicitation} \\ \text{in common} \qquad \qquad \qquad (A \longrightarrow B) \end{array}}{\text{total score A}} \times 1000 = \begin{array}{c} \text{index of interword} \\ \text{associative affinity} \\ (A \longrightarrow B) \end{array}$$

$$\frac{\begin{array}{c} \text{score for responses + score for direct elicitation} \\ \text{in common} \qquad \qquad \qquad (B \longrightarrow A) \end{array}}{\text{total score B}} \times 1000 = \begin{array}{c} \text{index of interword} \\ \text{associative affinity} \\ (B \longrightarrow A) \end{array}$$

In the two lists in Table 8 one response or association in common is beggar. In list A beggar has a score of 43; in list B, a score of 38. Poverty, which occurs in list A with a score of 38 and in list B with 44, is also a response common to both lists. The lower score for beggar is 38, and the lower score for poverty is 38. The lower scores are used because the quantity represented by the lower scores is common to both lists.

TABLE 8
INDEX OF INTERWORD ASSOCIATIVE AFFINITY

Stimulus Word A: HUNGRY		Stimulus Word B: POOR	
Response	Score (Colombian Group)	Response	Score (Colombian Group)
meal	107	hungry	77
food	73	money	71
hunger	65	poverty	44
poor	59	beggar	38
beggar	43	necessity	30
poverty	38	house	28
Total score A	385	Total score B	288

The total score of the responses in common is 38 plus 38, or 76. (Although hunger and hungry are close enough to be considered as one response, and poor and poverty are similarly close, they are considered as separate responses.)

Next, any response to one stimulus word that is identical to the other stimulus word is considered. In Table 8, this means HUNGRY eliciting poor as a response or POOR eliciting hungry. They are said to elicit each other directly; hence, what is here measured is called direct elicitation. Considering the relationship of HUNGRY to POOR, HUNGRY elicited poor with a score of 59.

The score of the responses in common to HUNGRY (76) plus the score of the directly elicited responses (59) indicate the total degree of shared meaning. The score representing the shared portion of the total meaning reaction cannot be taken by itself or it would be merely a function of the length of the response lists. Therefore, it is divided by the total score of the six responses to HUNGRY (385). This is the case if the relationship of HUNGRY to POOR is being considered. (In this example it is supposed that there were only six responses to each stimulus word.)

The score representing the shared portion of the total meaning reaction is thus expressed as a fraction of the total score representing the total meaning reaction. This fraction is multiplied by 1000 in order to make it an integral number, that is, not a fraction. The resulting number is called the interword index as calculated from HUNGRY to POOR.

$$\frac{76 + 59}{385} \times 1000 = 351 = \text{index of interword associative affinity, HUNGRY to POOR}$$

If, however, the relationship of POOR to HUNGRY is being considered, the index would be different, and the score representing shared meaning would be divided by the total score for POOR. In this case, instead of HUNGRY eliciting poor with a score of 59, POOR elicits hungry with a score of 77. Only the directly elicited part

of the shared responses changes; the score for responses in common remains the same. In this case the total score for POOR is 288.

$$\frac{76 + 77}{288} \times 1000 = 531 = \text{index of interword associative affinity, POOR to HUNGRY}$$

Table 9 presents interword indexes of associative affinity calculated for the relationship of four words on eating and food with four words on poverty. The higher the index, the closer the degree of relationship, since the index shows the number of responses in common.

Example. The matrix of data in Table 9 shows many distinct and consistent differences. The affinity of the word RICE to the other food-related stimulus words is always higher for the Korean and Colombian student groups. The relationship of HUNGRY to POOR is also consistently higher for these groups. This is also true for the other poverty-related terms like BEGGAR and MONEY. These findings support Kluckhohn's position that hunger represents different needs and has different meanings for people of different cultural backgrounds. The data display considerable consistency, especially for culture-specific items that are closely related in meaning (for example, POOR and BEGGAR).

Indexes on single word pairs provide empirical data on single relationships; index averages calculated on the affinity of single words with a set of words representing a particular reference or meaning area have more generality. Indexes calculated between domains may be expected to gauge cognitive organization at an even higher level of generality by revealing how closely interrelated are such areas for a particular group.

TABLE 9

INDEXES OF INTERWORD ASSOCIATIVE AFFINITY FOR TWO REFERENCE AREAS*

Stimulus Word A	Group	Stimulus Word B and Direction of Relationship											
		Poor		Money		Beggar		To Desire		To Eat		Rice	
		A-B	B-A	A-B	B-A	A-B	B-A	A-B	B-A	A-B	B-A	A-B	B-A
Hungry	U. S.	205	210	89	80	165	165	114	119	427	412	135	146
	Korean	363	362	126	111	342	308	89	131	337	400	305	286
	Colombian	418	363	195	148	370	390	158	162	304	296	229	257
Food	U. S.	80	82	54	72	29	49	60	77	581	529	124	176
	Korean	109	113	78	73	114	117	35	50	494	506	313	280
	Colombian	125	131	128	119	93	97	56	63	534	573	303	380
Rice	U. S.	80	80	59	53	62	57	45	44	149	127		
	Korean	125	181	76	88	64	71	36	60	387	397		
	Colombian	82	64	83	62	65	55	37	33	304	270		
To eat	U. S.	80	91	52	52	71	73	86	99				
	Korean	132	140	85	83	110	118	46	65				
	Colombian	136	152	119	128	121	140	117	141				
To desire	U. S.	109	110	143	121	123	119						
	Korean	150	106	200	128	113	84						
	Colombian	109	101	155	127	83	77						
Beggar	U. S.	385	315	157	91								
	Korean	425	357	166	174								
	Colombian	550	417	153	139								
Money	U. S.	144	194										
	Korean	190	207										
	Colombian	199	278										
Poor	U. S.	155	154	97	95	139	124	97	98	206	197	93	98
	Korean	214	207	132	116	190	171	96	89	228	244	186	195
	Colombian	231	215	147	142	205	287	102	101	239	243	163	160
Average index	U. S.												
	Korean												
	Colombian												
Average index	U. S.	155	154	97	95	139	124	97	98	206	197	93	98
	Korean	214	207	132	116	190	171	96	89	228	244	186	195
	Colombian	231	215	147	142	205	287	102	101	239	243	163	160
Average index	U. S.												
	Korean												
	Colombian												

* A-B signifies the affinity of stimulus word A to stimulus word B. B-A signifies the affinity of stimulus word B to stimulus word A. In comparing the indexes of interword associative affinity among the three groups, a difference of 55 or more is generally significant at the 0.05 level and a difference of 83 or more, at the 0.01 level. The average index is the index of interword associative affinity for each word based on its relationship with the other seven.

STIMULUS-RESPONSE MATRIX EVALUATION OF GENERAL RESPONSE TRENDS

A computer-based matrix evaluation of responses produced to selected stimuli has been developed to provide a more global picture of the general response trends differentiating two groups.

In this analysis we use a stimulus-response matrix in which the individual stimuli represent the heads of the columns and the responses in alphabetic order represent the rows (see Table 10). The scores with which these responses were elicited constitute the cell values. The row totals represent the total score a particular response accumulated across all the stimuli included in the analysis. These row totals show the salience of a particular response in the context of all the stimuli used in the representation of a given broader semantic domain.

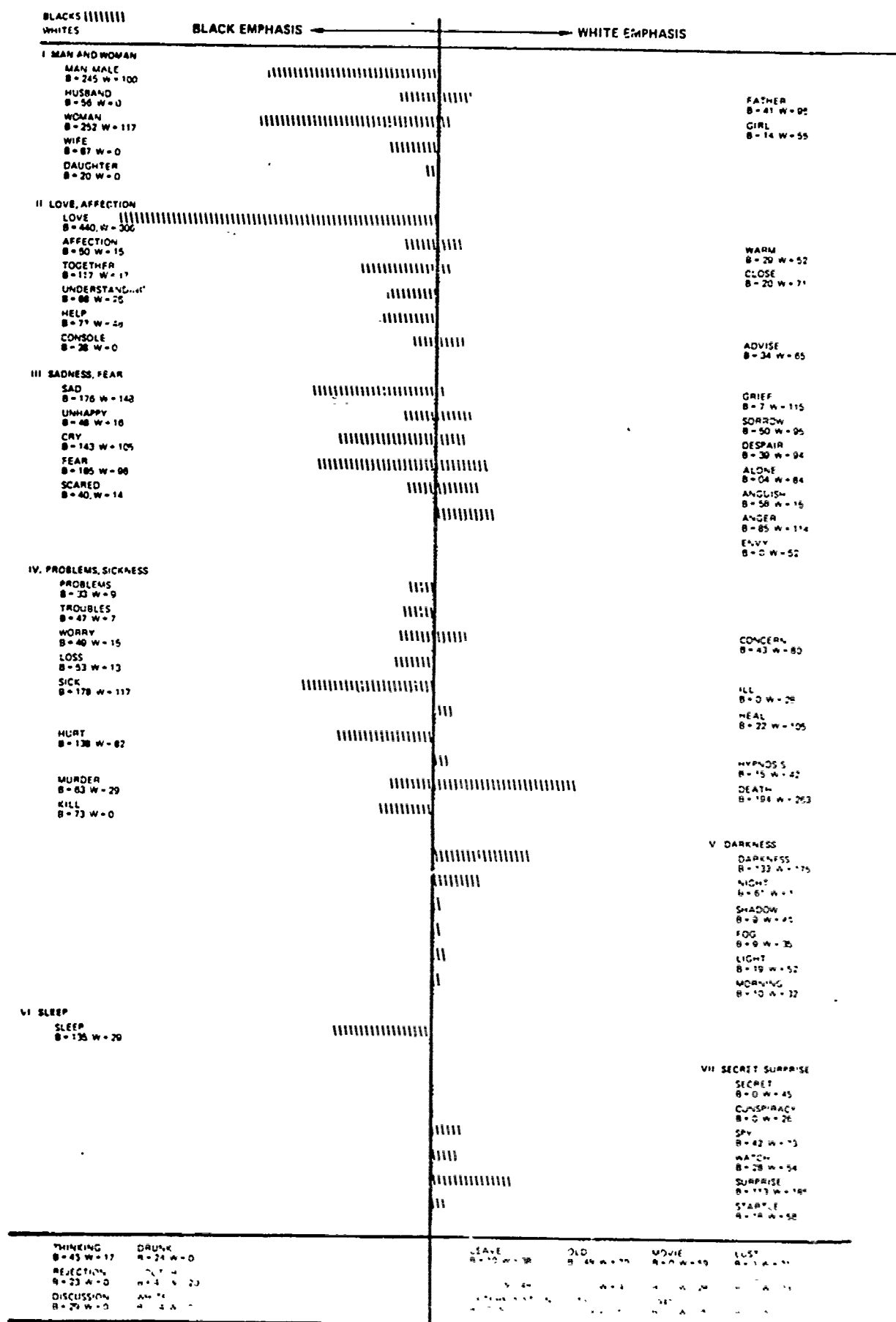
TABLE 10
ILLUSTRATION OF STIMULUS-RESPONSE MATRIX

Responses	Stimulus 1	Stimulus 2	Stimulus 3	Row Totals
abacus	--	6	--		6
abandon	6	--	12		18
advise	8	21	.	11	440
.
.
.
Column Totals	892	1012	752		11,793

Applying this matrix analysis to the responses to the stimuli from each group, a comparison of the row totals from each matrix offers a simple method for the identification of different response trends. These matrices, containing usually several thousand responses, are too lengthy for presentation, and we are not interested at this level of analysis in the single items or in the overlapping portion of responses, those given equal emphasis by both groups. Rather, it is more interesting to ask to what extent the row totals suggest differential response trends, different perceptual priorities, projective mechanisms. Thus, the analysis is selective, focusing on responses with significantly different salience.

To give a short summary of the differential response trends, we limit our presentation to those responses whose score difference between the two groups was 30 or more in either direction. All responses produced with such score differences are presented in graphical form as illustrated by Figure 3.

FIGURE 3 DIFFERENCES IN RESPONSES TO TAT PICTURES BY BLACKS AND WHITES



On the left side of the graph are responses on which one group produced a higher score than the other. On the right are responses that scored significantly higher from the second group. Each response is shown with its score achieved by each group.

Furthermore, to facilitate the review of response trends, we group the related responses together. Such an approach is desirable because it is important to distinguish the response differences that are based primarily on different vocabularies from those which reflect deeper perceptual and attitudinal differences. For instance, if one group emphasizes the word Black while the other uses the word Negro, we would consider this to be a primarily terminological difference. To avoid mistakes and premature conclusions based merely on the salience of one or the other, we present all responses dealing with race, racial identification in one category: The presentation of the words Black and Negro would be shown as synonyms by bars placed at the same level in the graph. If the data showed, however, that one group uses naturally one response, e.g., Black, more frequently than the other group uses Black or any synonymous response like Negro, then it appears to be justified to conclude that this is not merely a matter of terminology. If this is a consistent trend, it would indicate that the first group has a stronger disposition to identify people in terms of their racial identity. Response categories which have matching or partially matching reactions scoring higher on the other group are shown together at the same level in the profile. Thus, bars which extend into both sides suggest response differences based on semantic habits and vocabularies. Bars that have no equivalent or partially equivalent bar on the other side can be considered to reflect mainly perceptual and attitudinal differences.

It must be emphasized that the presentation is focused on differential response trends. It excludes all the responses which produced similar scores with score differences under 30. The presentation is complete and exhaustive, however, in the sense that it does not omit any response that meets the criterion of a score difference of 30.

The first part of the presentation includes larger clusters that reflect broader perceptual trends, while the second part merely lists single responses that have weaker and narrower foundation.

These matrices have been used to compare pictorial versus verbal stimuli, ethnic-racial groups, and before-after reactions. The responses of different racial or cultural groups can be compared to identify response trends with significantly different saliences for these two groups. A comparison of reactions produced before and after an event (e.g., film episode) can be used to identify which perceptual and attitudinal trends were strengthened and which lost salience.

RELIABILITY AND VALIDITY OF MEASURES

The continued verbal association task used in the Associative Group Analysis method produced extensive response distributions characterized by contrasts of high and low response frequencies. Analysis of these response distributions (represented by group response lists) produces various categories of information, some on selected dimensions of the group's frame of reference (e.g., hierarchy of priorities, the dominance scores), others on selected psychological variables (e.g., attitudes, the Evaluative Dominance Indices). The reliability and validity of measures focusing on various dimensions and variables naturally require individual consideration.

Meaning Elements Represented by Single Responses

Even though conclusions are rarely based on a single response, the specific responses are the fundamental mosaic elements of information obtained in continued association tasks and thus it is necessary to determine how much reliable information exists in a single response.

The answer to this question depends naturally on the number of people who gave the particular response and on the score the response has accumulated based on its rank places of emission. The use of continued associations required the development of a weighting procedure which allows to account for the differences in information value between first responses and the responses produced later at lower rankings. An empirically founded weighting system has been derived using the differential stability of responses observed in test-retest results. The following reliability scores were obtained as a function of the rank place (Table 11).

TABLE 11
STABILITY OF RESPONSES DEPENDING ON THEIR RANK PLACE

Stability and Weights	Rank of Response									
	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
Stability, percent of recurrence in retest	.60	.48	.42	.34	.32	.30	.25	.20	.15	.11
Weighting score based on the stability	6	5	4	3	3	3	3	2	2	1

This suggests that the average stability of a single response in continued association tasks is .32. This mean value represents the stability of an average response for an average person. The mean stability substantially increases when calculated on group basis. The increase becomes explicable by the observation that while a particular person may fail in retest to give the same response he gave in the first test, it frequently happens that other subjects will use the word

as a response in the retest although they may not have given it in the first test. Thus, particularly the common responses substantially increase this stability on group basis.

As the Associative Group Analysis method draws inferences on groups rather than on single individuals, the stability of responses on group basis requires particular attention. The group response lists representing response frequencies weighted by their individual rank places serve as the data base for such inferences. With focus on the shared responses of the group, responses given by only one person are disregarded as idiosyncratic. To assess the stability of group responses, split-half comparisons were made of a group of 100 subjects split randomly. Comparing the group response lists of the two groups of 50 subjects, an average stability of .61 was obtained. Interestingly, this stability increased gradually when split-half groups of larger sizes were compared ($N=100$, $N=200$). This phenomenon bears apparently on the cultural sharing phenomenon, which has been described by several authors (Roberts, 1951; D'Andrade, 1959), but its implications go beyond our present concern with stability.

In connection with the problem of stability of response lists and the average stability of particular responses, it should be pointed out that this stability is also a function of particular stimulus words. Certain stimulus words are specific and produce steep response distributions focusing on a definite set of responses. Others are less definite and produce responses with great intragroup variations. This definiteness depends partially on the characteristics of the stimulus theme such as concreteness and specificity. Furthermore, it depends on the homogeneity of the group's experiences in respect to the stimulus.

These different variables cause considerable variations in the stability of responses. Thus, the average response stability value reported above is a rough estimate. When more precise data are needed, as in the case of the evaluation of changes, learning and training effects, it is desirable to obtain stability data on the relevant themes in separate split-half stability tests. The stability of specific responses as a function of the size of responses will be considered in the next appendix in relationship to the problem of statistical significance.

The validity of the information requires separate individual answers depending on the category of information under consideration—perceptual, attitudinal, behavioral, etc. Although the Associative Group Analysis method is used to derive information on diverse categories of variables, the inferences are usually based on entire response distributions or clusters of responses rather than on single individual responses. Thus, although the measures are based on responses, the problem of validity can be examined more meaningfully in the context of the particular measures rather than single responses.

Meaning Components Inferred From Response Categories

While the similarity coefficient measures the overall similarity of two groups about their global meaning reaction to a particular theme, the relative saliences of clusters of homogeneous responses are used to indicate the similarities on particular components of meaning. For instance, a

similarity coefficient of .62 between two groups on socialism expresses the overall degree of agreement, but it does not tell on which components of meaning the groups agree and on which they do not. It will not reveal, for instance, that the groups agree that socialism implies strong government control but disagree that socialism would require a shift from free to controlled economy or doing away with private initiative.

As described in more detail earlier a method of assessing cultural meanings in terms of salient components uses a content analytic approach which relies on categorization of responses performed independently by two or more judges. This approach is especially important because it is the main method of assessing salient meaning components, their cultural similarities and differences, as shown by the semantographs. The reliability of this content analytic method was tested by comparing the performance of five judges working independently from each other. The interjudge reliability measured by product-moment correlation across 76 categories was .7.

The validity of such inferences on particular single meaning components cannot be directly assessed because simple criterion measures are not available. There are, however, findings which show, for instance, that the salience of these meaning components provides valid predictions on the meaningfulness of messages in intercultural communications. Communication material that capitalized on salient components of cultural meanings was judged by members of this culture as relatively more meaningful than comparable communication material produced by cultural experts (Szalay, Lysne, and Bryson, 1972).

Intergroup Similarity of Themes Inferred from the Total Response Distribution

The extent two groups agree on the meaning of a particular theme is measured by the coefficient of similarity. This coefficient is a Pearson product-moment correlation calculated between the response distributions produced by the two groups to the same stimulus theme. Correlation is used to assess the extent to which the two groups are similar in their response distributions; that is, in producing the same high frequency and the same low frequency responses.

The reliability of this measure may be approached by comparing two groups of similar composition obtained by splitting a larger group randomly into two halves. The coefficients produced by the two groups on a sample of themes may be then averaged. Using this approach and comparing two split-half groups on 26 themes, a correlation of .73 was obtained recently. In a previous comparison an r of .82 was obtained calculated over 40 themes. A closer examination reveals that the coefficient depends a great deal on the particular theme under consideration. Themes that are specific and concrete produce steep response distributions characterized by a few widely shared responses, or meaning elements. The theme family, for example, is specific and concrete and for everybody to a certain extent it involves father and mother. The themes concern and anxiety are less definite, and instead of everybody agreeing on a few particularly salient responses, people produce a broad diversity of responses. In this situation, low correlation does not necessarily mean low reliability of the measure but may be a consequence of the characteristics of the theme, of its indeterminate nature. In such a situation, the stability of the measure may be better estimated by considering how stable a coefficient is within particular themes rather than across all themes.

To assess this stability, the coefficients obtained on the same themes for the two split-half groups were correlated over the 26 themes and produced an r of .89.

Intragroup Homogeneity

A comparison of split-half groups shows how much agreement exists within a particular group on a particular stimulus theme. As previously mentioned this intragroup agreement depends to a certain degree on the determinate or indeterminate nature of the stimulus.

A second factor influencing the value of the coefficient is the size of the group. Obtained on the basis of 32 themes (domain "FAMILY" and "HEALTH") the mean coefficients presented in the table below show a distinct increase with the size of the groups compared.

TABLE 12
RELATIONSHIP BETWEEN COEFFICIENT OF HOMOGENEITY
AND GROUP SIZE

Number of subjects in group	r Coefficient of Homogeneity	Number of pairs of split-half groups compared
13	.40	3
26	.67	3
52	.79	3
78	.84	2
104	.87	3
156	.90	1

NOTE: The coefficients are based on the comparison of split-half groups and represent a mean of coefficients calculated on 32 themes. Where more than one pair of split-half comparisons were made, the coefficient represents a mean of the means for each comparison. Means were calculated using Fisher's Z transformation.

The rate of the increase is fast if we increase the size of small samples. For instance, an increase in sample size from 13 to 26 produced an increase of 27 points in the coefficient, while an increase from 52 to 104 produced an increase of only 9 points. Thus, there is a distinct decline in the growth rate in the case of large samples, and the coefficients come close to their plateau with a sample size of 200. Correlations do not generally increase just because the base of their calculation is extended. An explanation is likely to be found in the nature of mechanics of the calculation; the relatively large number of 0 scores obtained with a small sample decreases the correlation value.

Another interesting and important characteristic of the homogeneity coefficient is that it varies with the characteristics of individual themes. The variations are apparently explicable by the fact that some themes and domains are more concrete, definite, tangible (e.g., CAR, MONEY), while others are more indeterminate, unobservable, abstract (EQUALITY, EXPECTATION). These variations may be illustrated by showing the coefficients of homogeneity on the themes used in the representation of the domain "FAMILY." The data presented in Table 11 show the coefficients obtained using three different sample sizes: 13, 52, and 156. In contrast to the wide range of variation (-.12 to .70) observed at the level of smallest sample, in the case of the largest sample the range was narrower (.72 to .96). As a tentative explanation we are inclined to suggest the phenomenon of "cultural sharing."

D'Andrade (1959) has observed that items or traits tend to be either shared by the entire group or unique to individuals. He uses the following example to illustrate this sharing phenomenon: A statistician visits two typical homes of some culture group. On the basis of these visits, he estimates that roughly 40% of all the household items he has counted are shared by the two households, while 60% were unique to each. On the basis of this estimate, and on the assumption of independent assortment of items, he calculates that if he visits five pairs of houses, he will find on the average only 1% of the items shared by all ten houses--that is, four to the fifth power. When a census of items across a number of households is taken, however, the results usually do not support the independent-assortment assumption. Instead, a much larger number of items than expected is found to be shared by all households, and a larger number than expected is found to be unique (see Roberts 1951 for an example of such a census of cultural items). A comparison of cultural beliefs by D'Andrade shows, for instance, a ten times greater agreement between five pairs of informants than would have been predicted on the assumption of independent assortment of beliefs. It follows from the rationale of this sharing phenomenon that larger groups, which provide a broader basis for observations, can be more completely described than smaller ones.

TABLE 13

HOMOGENEITY COEFFICIENTS OBTAINED ON THE DOMAIN
"FAMILY" USING SAMPLES OF DIFFERENT SIZE

Stimulus Theme	Sample Size		
	13	52	156
FAMILY	.16	.70	.80
MOTHER	.63	.84	.92
FATHER	.05	.82	.92
BROTHER	.70	.80	.96
SISTER	.28	.82	.94
PARENTS	.60	.81	.88
TOGETHERNESS	.27	.64	.93
HUSBAND	.40	.84	.92
WIFE	.49	.81	.89
RELATIVES	.46	.57	.85
DIVORCE	-.12	.47	.72
CHILDREN	.25	.57	.90
HOME	.53	.41	.93
ME	.17	.86	.95
HAPPINESS	.49	.78	.93
ANCESTORS	-.09	.43	.72
Mean	.35	.72	.90

The data presented in the preceding two tables underscore the importance of working with a sample size of at least 50.

Dominance Hierarchy

The importance groups assign to themes and domains may be inferred from the number of associations produced in one-minute continued association tasks--a measure of meaningfulness introduced and validated by Noble (1952). The associative dominance score is a weighted variant of Noble's m . At an individual level, it is based on the weighted frequency of responses given to a particular stimulus theme. At group level, it is based on the number of responses produced in common by the members of the group and weighted by the sequence in which they are produced. Responses in common are those associations that were given by at least two members of the group. Group associative dominance scores have been found to be highly culture-specific (Szalay, Moon, Lysne, and Bryson 1971) and have a reliability of .93 calculated from a test-retest comparison on 40 themes. The dominance scores express how important themes and domains are for each group.

Affinity Structure

The affinity structure as shown by the relatedness of themes can be measured by the overlap of associative response distributions. The associative affinity index is a modified relatedness measure, similar to those reviewed by Marshall and Cofer (1963). The index of associative affinity has been developed for use with continued associations. To calculate the extent to which theme A is related to theme B, the sum of the scores of the associations in common to A and B, plus the direct elicitation of theme B to A, is divided by the total score of associations elicited by A; the fraction is multiplied by 1,000. The reliability of this index in split-half comparisons was in the range of .90 (Szalay and Windle, 1968). The validity of this measure may be estimated based on the correlations of this measure with other independent measures. In a recent comparative study (Szalay and Bryson, 1972), the affinity index produced the following correlations: similarity judgment .73; judgment of relationship .77; grouping task .84. The calculations were based on 66 index pairs.

STATISTICAL SIGNIFICANCE OF ASSOCIATION DATA

Although the Associative Group Analysis method relies on response trends observable in groups of responses rather than on single responses, it is desirable to consider the significance of single elements of observations as well as significance of various measures founded on associations as elementary units.

The question of significance may be meaningfully posed in various contexts, and depending on the context, on the nature of the comparison, the answer may call for different approaches, solutions. Generally, the probability problem inherent in associations is a complex one particularly in the case of continued association tasks because individual responses cannot be treated as representing independent observations.

Significance of a Single Response

As the inferences are based on responses and response scores as the basic units of information, the first question to ask is how do we know whether a particular response obtained with a particular score from a particular group is a significant response. We would like to know, for instance, whether the response Blacks with a score of 33 obtained from a group of 50 subjects to the stimulus EQUALITY may be considered a significant response. Can we consider this a reaction characteristic of the group rather than one determined merely by chance?

As subjects do not give the same response twice, in this case we can be reasonably sure that the score was produced by separate individuals. As the average score value of a response is 3, we may assume that 11 different subjects (33/3) out of the 50 have given this response. To determine the significance of this reaction, we may compare this group with a reference group of 50 subjects who did not give this response at all. The contingency tables offer a simple way to evaluate the probability of such a difference. The fourfold table in this case takes the following form:

TABLE 14
NUMBER OF SUBJECTS USING (YES) AND NOT
USING (NO) THE RESPONSE BLACKS

	Group 1	Reference Group	Total
Yes	11	0	11
No	39	50	89
Total	50	50	100

Using the fourfold contingency table offered by Mainland and Murray (1952), we find that in a situation where the comparison is between two groups of equal sample size ($n=50$) and the smallest cell frequency is 0, a frequency of 6 represents a significant difference at the .05 level and a frequency of 8 amounts to a significant difference at the .01 level. Considering these significance limits, the score value of 33 equated with a frequency of 11 suggests a significant response at the .01 level.

This approach requires a transformation of score values into frequencies, a step which involves some occasional inaccuracies as it relies on a mean. Responses with above-average weights lead to an overestimation of frequency. However, as the experimental results on the development of the weighting system have shown, higher than average weight is founded on higher stability, which is likely to compensate for the lower frequency.

By equating a score of 3 with a frequency of 1 and using the above significance limits suggested by the contingency tables, any response accumulating a score of 18 or above may be considered significant at the .05 probability level; responses with scores of 24 and above are considered statistically significant at the .01 level.

Significance of Response Score Differences Between Two Groups

The above rationale of testing significance may be extended to assessing the significance of a particular response produced by two groups with a different score value. Two groups ($N=50$) responding to the stimulus EQUALITY, for instance, respond with Blacks with scores of 14 and 38, respectively. The significance of this difference can again be explored by using the contingency table after transforming the scores into frequencies of 5 and 13.

TABLE 15
NUMBER OF SUBJECTS USING (YES) AND NOT
USING (NO) THE RESPONSE BLACKS

	Group 1	Group 2	Total
Yes	5	13	18
No	45	37	82
Total	50	50	100

In this case the smallest cell frequency is 5 and the parallel frequency of 13 falls short of the 14 required at the .05 or 17 required at the .01 probability level.

As the standard group size is 50 and the significance estimates depend both on the smallest frequency and the difference, that is, the frequency observed in the parallel cell, the following table (Table 16) is offered for estimating the level of significance of observed differences in score values for the same response by two groups.

TABLE 16

SCORE VALUES REQUIRED FOR SIGNIFICANT DIFFERENCE WHEN COMPARING TWO GROUPS ON THE SAME RESPONSE TO A PARTICULAR STIMULUS THEME

Score Values Required from Higher Scoring Group for Significant Difference	Score Values (and Corresponding Frequencies) for Group Giving the Response with a Lower Score																									
	0 (0)	1-4 (1)	5-7 (2)	8-10 (3)	11-13 (4)	14-16 (5)	17-19 (6)	20-22 (7)	23-25 (8)	26-29 (9)	29-31 (10)	32-34 (11)	35-37 (12)	38-40 (13)	41-43 (14)	44-46 (15)	47-49 (16)	50-52 (17)	53-55 (18)	56-58 (19)	59-61 (20)	62-64 (21)	65-67 (22)	68-70 (23)	71-73 (24)	74-76 (25)
Significant Score Values at .05 level	18	24	30	33	39	42	45	51	54	57	60	66	69	72	75	78	81	84	87	90	93	96	99	102	105	108
Corresponding Frequency from Contingency Table	(6)	(8)	(10)	(11)	(13)	(14)	(15)	(17)	(18)	(19)	(20)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)
Significant Score Values at .01 level	24	30	36	42	45	51	54	60	63	66	72	75	78	81	84	87	90	93	96	99	102	105	108	111	114	117
Corresponding Frequency from Contingency Table	(8)	(10)	(12)	(14)	(15)	(17)	(18)	(20)	(21)	(22)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)	(37)	(38)	(39)

The above table was constructed for comparing the scores of two groups on a particular response to determine whether there is a significant difference in emphasis. The frequency values given in parenthesis were taken from the chi square tables of Mainland and Murray (1952). The corresponding score values were calculated under the assumption that a frequency of 1 may be equated with an average score value of 3. The score values across the top of the table are those observed for the group with the lower score. The rows indicate the corresponding score values required from the higher scoring group to reach a significant score difference at the .05 and .01 levels.

These estimates are based on the assumption that with a tolerable margin of error, scores may be used to estimate frequencies and that the probability estimates developed for chi squares may be applied to the problem at hand, where two groups are compared in respect to one particular response.

Significance of Score Differences Within Groups

The above reasoning does not apply when comparing responses produced by the same group. Several different types of comparisons fall into this category and all have in common that the two group response scores to be compared cannot be treated as independent as they may have come from the same person.

For instance, the response Blacks and the response woman obtained from a particular group to the stimulus word EQUALITY cannot be treated as two independent responses from a statistical point of view. By statistical criteria, they can be considered independent only if the people who gave the response Blacks were not the same as those who gave the response woman. In some instances this may be true; in others, not. The group response list does not tell us whether the scores for Blacks and for woman came from the same or from different people. Because the contingency tables were derived for the comparison of independent observations, they are not applicable to intragroup comparisons where the associative responses may come from the same subjects. In search for a method applicable to this situation of intragroup comparisons, we explored the distribution of score differences based on chance and used these chance-determined distributions to estimate the probability of particular differences or ranges of differences which are significant at various probability levels.

To assess the parameters of chance-determined differences, the method of test-retest comparisons was used. If the association task is administered to a group at one particular time (t_1) and again a few weeks or months later (t_2) (granted that the group did not go through some drastic changes during this period), it is assumed that the responses will be generally the same. The differences observable between the response distributions obtained at t_1 and t_2 will be the results of mere chance. Assessing the size of these chance-determined differences provides us with an empirical base for comparison, for estimating the probability of other differences.

Response distributions obtained before and after a three-month period from a group of 50 subjects on 18 words have been compared. As a measure of the range of variance, the standard deviation ($SD=7$) was obtained. This finding is based on the analysis of over 1500 pairs of observations, excluding from consideration the broad variety of idiosyncratic responses. Because of this exclusion, the above standard deviation values may be considered a conservative estimate. Assuming a normal distribution of differences, these two measures allow to calculate significance limits, score values that are unlikely to occur by chance. Based on characteristics of the normal distributions, we know that $1.9 \times SD = 14$ represents the significance limit at the .05 probability level. Score differences of 14 and larger have a 5% or less probability (one in twenty) to occur on the basis of chance; that is, they have 95% probability to reflect genuine, significant, not-chance-determined differences.

Following the same rationale, we expect score differences of $2.5 \times SD = 18$ to be significant at the .01 level of probability. A score difference of this size or larger will be very significant in the sense that out of 100 instances, 99 will be founded on more than chance. In the case of the preceding example where woman scored 16 and Blacks scored 39 as responses to EQUALITY, the score difference is 23. Compared with the significance limits ($p < .01 = 18$), this larger score difference suggests that the two responses genuinely differ in their intensity: the group is apparently more concerned with the unequal status of Blacks than that of women.

It may be mentioned that these significance limits ($p < .05 = 14$; $p < .01 = 18$) are also applicable when comparing the same response given by a particular group at two different times. Taking for instance, the word EQUALITY as a stimulus in association tasks administered before and after a "human awareness" training program, we may find that before the training the group gave the response Blacks with a score of 39 and after the training with a score of 68. The score difference in this instance is 29, which is greater than the 18 needed for significance at the .01 level. The difference in this case suggests that there was a significantly greater emphasis on Blacks after training and supports the conclusion that the training experience has produced an increased awareness of the unequal position of Blacks. Generally, this second type of application of the previously derived significance limits helps to determine the progress and significance of change processes—socialization, learning effects—as these changes are reflected by association data in particular dimensions.

A third type of comparison involves the scores obtained from the same group on the same response in two different contexts—i.e., in the context of two different stimulus words. We may reverse the previous example and consider the words BLACKS and WOMAN as stimulus words and compare them with regard to the response equality. That the response equality was given by the same group with a score of 8 to WOMAN and with a score of 39 to BLACKS apparently indicates a strong difference in emphasis as reflected by the score difference of 31. Using the previously obtained significance estimate of 18 for .01 level of probability, we can conclude that the score difference of 31 is highly significant, that is, the group assigns significantly greater salience to the problem of equality in respect to Blacks than in respect to women.

Significance of Domain Response Score Differences Between Groups

The domain response scores are sums of scores accumulated by a particular response across a number of stimulus themes used in the representation of a particular semantic domain. Domain response scores emerge from a type of global analysis which focuses on an entire semantic domain rather than on a single stimulus. The domain SOCIAL ENVIRONMENT, for example, may be represented by such stimulus themes as FAMILY, FRIENDS, and COMMUNITY. The group response lists obtained to the representative themes form the columns of a matrix; the rows of the matrix are formed of responses and their score values obtained in the context of the stimulus themes. The total score accumulated by a particular response across all, say, 16 stimulus themes used in the representation of this domain constitutes a domain response score. It shows the sum of scores for this particular response for the domain and is analogous to the group response score. As these domain response scores represent the units of a more global

analysis for comparing groups at the level of entire semantic domains, their stability and the significance of their differences represent questions of practical importance.

To assess the significance of differences, a group of 100 subjects were split into two equal groups of 50. Two split-half matrices were constructed and the differences of their domain response scores compared. A comparison of 600 such score values showed a standard deviation of 6.1. Based on this, the following significance estimates were calculated. At the .05 probability level, domain response score differences of 12 and above are considered significant; at the .01 level, domain score differences of 16 or larger are considered to be highly significant.

Next, we may explore the application of the above significance limits to the following example of Black and White comparisons. An analysis of the responses of 50 Black and 50 White students to 16 stimuli representing units of the social environment has produced the following responses and domain response scores within a particular selected category.

TABLE 17
COMPONENT EGO, INDIVIDUALISM OF THE "SOCIAL ENVIRONMENT"
DOMAIN

Response	Domain Response Scores		Significance of Difference
	Black Group	White Group	
self, self image	9	24	*
myself	23	55	**
mine	16	13	
me	47	82	**
individual, -ism	31	23	
personal	3	11	
impersonal	0	20	**
ego	5	13	
I	17	59	**
personality	14	0	*
person	25	13	*
human being	3	0	
Total Component Score	192	313	

*p < .05

**p < .01

Significance of Category Score Differences

As was discussed in the context of the content analysis of group response lists, the category scores represent sums of the response scores of responses assigned by the judges to a particular category. While these category scores show the salience of selected meaning components and represent particularly important information, the significance of their scores and score differences constitutes a particularly difficult problem for two major reasons. First, as category scores are based on several responses, some of which may come from the same subjects, we cannot treat the scores as representing

independent frequencies. Furthermore, decisions in the grouping of the responses obviously influences the score values, and as this grouping depends on a few (two or three) judges, the accumulated score values cannot be treated as sums emerging from a spontaneous process of accumulation. Consequently, we do not have any exact, high power significance test applicable to category scores. Instead, we have two possible approaches.

The simplest way to determine the significance of category score differences is to explore the significance of score differences of some of the largest underlying responses. If some of these are significant, then there is little doubt that the global category scores bear on significant differences.

The second approach requires the use of information drawn from the chance distribution of category score differences derived from a test-retest comparison. Analyzing the differences in 142 category scores observed between test and retest results separated by three months, a standard deviation of 23 was obtained. This standard deviation multiplied by 1.9 gives a score difference of 45 significant at the .05 level of probability and 59 at the .01 level.

These significance estimates are equally applicable to category score differences obtained between or within groups. An example of comparing differences across groups can be illustrated by Table 18, using Black, White, and Spanish-American groups (N=50).

TABLE 18
COMPONENT POSITIVE CHARACTERISTICS OF THE THEME BLACKS

Responses	Group Response Scores		
	Blacks	Whites	Spanish
beautiful	48	9	7
good	10	6	16
nice	0	9	0
understanding	7	3	0
happy	0	0	8
determined	9	0	0
hardworking	13	0	0
Total Scores	87	27	31

As previously indicated, first we may examine the significance of differences in single responses. The response beautiful differentiates the Black group from the two others at the .01 probability level. The response hardworking comes close to being significant at the .05 probability level. The differences in the other responses do not reach the level of significance. The category scores support similar conclusions at a more generic level. They suggest that Blacks attribute significantly more positive characteristics to themselves than Whites or Spanish Americans attribute to them. The total difference between Blacks and Whites for this component (60) is significant at the .01 level of probability; the difference between Blacks and Spanish Americans (56) is significant at the .05 probability level (45) and does come close to the .01 probability level (59). Whites and

Spanish Americans did not show any significant difference in the salience they give to the positive characteristics of Blacks.

Significance of Differences in Coefficients of Intergroup Similarity

After single responses and response categories, we may compare total group response lists and search for criteria for identifying differences at various significance levels. The measure introduced to assess the overall similarity of response distributions is product-moment correlation calculated across the responses obtained to the same stimulus word (e.g., BLACKS) from two groups (e.g., Blacks and Whites) or from the same White group tested at two different occasions, such as before and after a "human awareness" training. This coefficient, called the Coefficient of Intergroup Similarity, is based on the assumption that the greater the similarity between groups, the more similar is the distribution of their responses: the same responses scoring high and the same responses scoring low to a particular stimulus word.

As has been discussed in more detail under stability coefficients show distinct variations in their stability depending on the specificity and level of determination characteristic of a particular stimulus theme. As this level varies from theme to theme, it is desirable to assess it individually for each theme. This assessment may be readily made by splitting the group randomly into two halves, producing two independent response lists, and calculating a coefficient of similarity between the two response lists. The coefficient so obtained may then be used as a reference point with which the coefficients calculated on the same word may be compared and their differences evaluated.

In order to obtain an empirically founded base for such decisions, we have again used a chance determined distribution of differences. This time a split-half method was used to obtain two sets of similarity coefficients, which we could assume differed from each other merely by chance. The calculations were based on 52 pairs of similarity coefficients producing a SD of .026. Using this standard deviation, differences of .056 are significant at the .05 level and differences of .072 are significant at the .01 level.

Applying these significance estimates we can decide to what extent similarity coefficients of a particular size can be considered as reflecting an overall difference that is significant at the selected level of probability. Thus, for instance, on the stimulus BLACKS we have obtained originally a similarity coefficient of .881. Based on the previously discussed significance limit of .072 obtained by split-half comparison as representing a highly significant difference at the .01 level of probability, we may conclude that coefficients of $.881 \pm .072$ suggest response distributions not significantly dissimilar from the originally responding White group. The previously given similarity coefficient of .23 on the comparison of the Black and White groups and .64 obtained by comparing the White group's responses before and after training suggest significant differences. This difference is not particularly surprising in the case of the Black-White comparison. It is more informative, however, in the case of the comparison of before-and-after training responses. It suggests significant changes in the Black image as a probable result of training effects.

Significance of Differences in Indexes of Interword Associative Affinity (IIAA)

The Index of Interword Affinity measures the relationship between two stimulus themes, such as UNEMPLOYMENT and POOR, based on the relative number of responses produced in common by a particular group to these stimulus themes. These indexes reflect on the network of relationships in terms of which particular groups perceive their environment—physical and social.

For instance, on the relationship of POOR to UNEMPLOYMENT, an affinity index of 204 has been obtained for the White group and an index of 313 for the Black group. The question of whether the difference can be considered significant was again approached by using information developed on the distribution of differences based on chance. To obtain such a distribution, members of a larger group (N=100) were assigned randomly to two groups (N=50), splitting the original group into two halves. Index matrices were independently calculated for each group. Each matrix included 225 indexes on the relationship of the same set of 16 words. Next, the differences of each of the matrix cells were assessed and their standard deviation was calculated at .019. Using this SD value and multiplying it by 1.96, the significance limit of .038 was obtained at the .05 level of probability. Multiplying SD by 2.58, the significance value of .050 was obtained at the .01 level.

These significance limits allow to assess whether any particular index difference reaches the level of significance. Applying these significance estimates to the Interword Affinity Indexes obtained on the relationship UNEMPLOYMENT-POOR for the White group (204) and for the Black group (313), the difference of 109 is highly significant at the .01 level of probability.

CERTAIN LIMITATIONS OF THE METHOD

Parallel to the potentialities of the word association approach, it is also desirable to be aware of its limitations. As the measurement of psychocultural distance relies heavily on the coefficient of similarity, certain problems associated with this measure are particularly relevant at this point. This coefficient measures the similarity of two response distributions by identifying the extent to which high and low frequency responses from one group correspond to the high and low frequency responses of the other. In the process we consider only those responses which are literally identical. Thus, synonyms are considered as different responses, although their meanings are the same; going by this rule synonyms are not recognized as having the same referents.

To illustrate the case we may use one example. The stimulus RACE may elicit heavy references to Blacks from Group A and few references to Blacks from Group B, but Group B may have a large frequency response of Negroes. In the calculation of the coefficient of similarity these responses are not treated as identical, while in reality they are only slightly different. By treating them as different responses we are likely to underestimate the relationship.

These biases are likely to increase the more groups differ in their vocabularies. One could argue naturally that differences in vocabularies are not accidental and they themselves are likely to reflect on cultural distance. Nonetheless, as some of these differences in the words used do not correspond to similar differences in perceptions, they are likely to give a somewhat inflated estimate of the actual perceptual differences. These biases are not too frequent, and they are in general randomly distributed; nonetheless, it is desirable that we keep this source of bias in mind. To estimate the relative size of this bias we may look at actual response distributions. In the context of the picture showing the two girls on the bed (Table 3, page 7), there are a few partial synonyms like woman/lady and laugh/smile. Similarly, the picture showing the boy and girl at the dinner table (Table 4, page 8) produced a few words with closely similar meanings: male/man, conversation/talk, and love/affection.

These cases illustrate several points. First, they show that frequently it is difficult to decide whether the words are exact synonyms or only partial ones. Second, while some of these response words differ indeed more morphologically than semantically, the bias does not appear to be sizable.

The categorized lists show, that this bias may be eliminated by the content analysis which puts the semantically related responses into clusters.

In this analysis the total score of the response cluster (synonyms, partial synonyms), rather than the individual response scores, represents the main source of information by revealing the salience of the main components of perception and evaluation. Thus, for instance, the nature and intensity of emotional ties projected into people's relationships by a particular group emerges from the total score accumulated by such responses as love, affection, and friendship. In this analysis the scores of single responses (e.g., synonyms) are inconsequential. The differences between groups may then be identified by a comparison of the scores showing the salience of the main attitudinal and perceptual components.

While the first analysis is useful in measuring similarity or distance, the second analysis may be used for the identification of such cultural dispositions as the Puerto Rican trend to see personal relations in the framework of family, or the U.S. disposition to see people in individual roles independently from family.

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APPENDIX 3

THE SIMILARITY AND DOMINANCE OF THE THEMES AND DOMAINS STUDIED

TABLE 1
SIMILARITIES BETWEEN FILIPINO AND AMERICAN SERVICE GROUPS

Domains/Themes	American			Filipino			American and Filipino		
	Rec./ 1-10	Rec./ 11-25	1-10/ 11-25	Rec./ 1-10	Rec./ 11-25	1-10/ 11-25	Rec.	1-10	11-25
"FAMILY"									
FAMILY	.60	.50	.91	.73	.70	.80	.64	.74	.73
FATHER	.84	.80	.81	.72	.62	.70	.38	.32	.59
CHILDREN	.56	.59	.78	.52	.57	.67	.34	.51	.64
WIFE	.85	.82	.85	.62	.58	.72	.50	.64	.80
HOME	.78	.76	.88	.50	.77	.41	.60	.38	.82
MOTHER	.89	.87	.88	.68	.67	.78	.48	.67	.76
Mean	.78	.75	.86	.64	.66	.70	.50	.56	.73
"FRIENDS"									
FRIENDS	.65	.41	.60	.65	.63	.69	.51	.46	.40
GIRL	.79	.70	.87	.77	.75	.81	.46	.57	.68
MUSIC	.67	.52	.73	.67	.55	.70	.38	.44	.65
HELP	.61	.55	.39	.52	.52	.60	.44	.35	.64
LOYALTY	.63	.69	.79	.16	.61	.20	.34	.19	.69
UNDERSTANDING	.47	.48	.56	.56	.59	.71	.41	.40	.54
Mean	.65	.57	.69	.58	.61	.65	.42	.41	.61
"SOCIETY"									
SOCIETY	.80	.81	.85	.78	.80	.82	.69	.74	.77
PEOPLE	.43	.44	.47	.28	.54	.44	.13	.34	.34
EQUALITY	.55	.49	.55	.67	.60	.76	.38	.44	.58
FREEDOM	.24	.45	.54	.56	.82	.67	.54	.28	.51
BLACKS	.75	.77	.77	.76	.82	.84	.30	.39	.44
WHITES	.71	.76	.77	.60	.72	.76	.18	.22	.42
Mean	.61	.65	.68	.63	.73	.74	.39	.42	.53

Table 1 (cont.)

Domains/Themes	American			Filipino			American and Filipino		
	Rec./ 1-10	Rec./ 11-25	1-10/ 11-25	Rec./ 1-10	Rec./ 11-25	1-10/ 11-25	Rec.	1-10	11-25
"SEX"									
SEX	.69	.67	.84	.90	.89	.91	.48	.74	.60
MAN	.86	.74	.80	.62	.65	.73	.44	.48	.69
WOMAN	.83	.71	.89	.79	.78	.89	.56	.71	.77
LOVE	.71	.60	.85	.55	.44	.56	.38	.68	.63
MARRIAGE	.82	.59	.76	.59	.58	.65	.50	.67	.56
PLEASURE	.85	.78	.78	.35	.61	.31	.34	.45	.32
Mean	.80	.69	.83	.68	.69	.73	.45	.63	.61
"MONEY"									
MONEY	.55	.54	.60	.68	.59	.64	.28	.51	.50
CAR	.64	.16	.36	.20	.22	.35	.32	.22	.60
POOR	.77	.82	.84	.44	.43	.69	.14	.59	.61
SAVE	.94	.94	.94	.95	.93	.96	.91	.92	.93
FOOD	.64	.65	.75	.71	.62	.74	.34	.59	.72
HOUSE	.70	.67	.91	.72	.75	.84	.48	.79	.73
Mean	.74	.70	.80	.69	.66	.77	.48	.66	.72
"WORK"									
WORK	.86	.86	.88	.85	.83	.88	.76	.85	.83
BUSINESS	.88	.80	.85	.67	.71	.69	.70	.84	.68
PROFESSION	.94	.83	.85	.78	.77	.87	.66	.70	.75
SECURITY	.63	.72	.82	.63	.54	.84	.57	.59	.76
BOSS	.45	.50	.64	.55	.49	.71	.26	.34	.56
CAREER	.83	.73	.90	.79	.74	.85	.77	.73	.77
Mean	.81	.76	.84	.73	.70	.82	.64	.71	.73

Table 1 (cont.)

Domains/Themes	American			Filipino			American and Filipino		
	Rec./ 1-10	Rec./ 11-25	1-10/ 11-25	Rec./ 1-10	Rec./ 11-25	1-10/ 11-25	Rec.	1-10	11-25
"EDUCATION"									
EDUCATION	.92	.82	.86	.61	.63	.73	.45	.68	.75
COLLEGE	.32	.32	.35	.55	.50	.60	.38	.42	.45
SCHOOL	.33	.25	.50	.30	.26	.51	.13	.45	.46
KNOWLEDGE	.55	.50	.64	.34	.46	.44	.20	.25	.36
DEGREE	.85	.85	.88	.21	.10	.58	-.01	.53	.56
SPORTS	.79	.83	.89	.28	.31	.46	.22	.61	.57
Mean	.70	.66	.74	.39	.39	.56	.23	.50	.54
"HEALTH"									
HEALTH	.87	.88	.91	.71	.67	.86	.60	.82	.89
LIFE	.73	.70	.78	.39	.46	.59	.30	.52	.65
SICK	.70	.64	.79	.34	.59	.44	.46	.58	.71
MENTAL HEALTH	.35	.32	.70	.58	.58	.60	.43	.31	.64
DOCTOR	.57	.56	.69	.24	.31	.67	.21	.43	.48
DEATH	.70	.58	.67	.58	.51	.72	.30	.55	.47
Mean	.68	.65	.77	.49	.53	.67	.39	.56	.67
"RELIGION"									
RELIGION	.86	.85	.95	.77	.80	.96	.63	.60	.63
GOD	.79	.73	.87	.66	.77	.76	.47	.66	.61
FAITH	.89	.89	.92	.86	.90	.91	.90	.86	.82
CHURCH	.91	.87	.87	.88	.80	.86	.64	.61	.85
Mean	.87	.84	.91	.81	.83	.89	.70	.70	.75
"SERVICE"									
SERVICE	.91	.91	.90	.62	.62	.85	.51	.69	.80
ADVANCEMENT	.64	.70	.67	.24	.22	.76	.24	.56	.58
PAY	.85	.88	.92	.88	.75	.82	.76	.80	.88
JOB	.92	.82	.90	.87	.82	.92	.75	.87	.81
DISCRIMINATION	.60	.49	.53	.52	.53	.81	.43	.53	.65
Mean	.82	.80	.83	.69	.62	.84	.57	.72	.76

Table 1 (cont.)

Domains/Themes	American			Filipino			American and Filipino		
	Rec./ 1-10	Rec./ 11-25	1-10/ 11-25	Rec./ 1-10	Rec./ 11-25	1-10/ 11-25	Rec.	1-10	11-25
"NAVY"									
NAVY	.75	.78	.84	.71	.70	.76	.63	.59	.78
COMMANDER	.53	.59	.88	.52	.59	.83	.41	.72	.82
SHIP	.67	.62	.84	.67	.64	.72	.60	.70	.75
SHORE DUTY	.55	.41	.72	.36	.38	.71	.40	.52	.73
SEA	.83	.85	.88	.83	.83	.92	.79	.75	.86
Mean	.77	.68	.84	.65	.65	.80	.59	.66	.79
"RECREATION"									
RECREATION	.52	.43	.77	.44	.44	.58	.04	.28	.46
ENTERTAINMENT	.70	.74	.81	.64	.72	.81	.49	.61	.71
GOOD TIME	.63	.44	.74	.58	.49	.68	.16	.31	.39
HOBBY	.31	.24	.50	.36	.30	.58	-.07	.23	.38
HAPPINESS	.76	.68	.82	.50	.58	.65	.46	.50	.76
Mean	.61	.53	.74	.51	.52	.67	.23	.40	.56
"SELF IMAGE"									
SHIPMATE	.85	.85	.90	.74	.75	.84	.69	.80	.81
ME	.75	.56	.56	.74	.71	.78	.52	.51	.65
I AM	.64	.53	.57	.66	.72	.74	.23	.48	.39
FILIPINO	.31	.16	.45	.70	.62	.80	.14	.28	.39
AMERICAN	.64	.59	.74	.65	.63	.80	.20	.52	.45
Mean	.67	.58	.68	.70	.69	.79	.38	.54	.57

Table 1 (cont.)

Domains/Themes	American			Filipino			American and Filipino		
	Rec./ 1-10	Rec./ 11-25	1-10/ 11-25	Rec./ 1-10	Rec./ 11-25	1-10/ 11-25	Rec.	1-10	11-25
"INTERPERS.REL."*									
OBLIGATION	.62	.50	.73	.60	.67	.67	.46	.26	.45
HONOR	.43	.34	.60	.86	.88	.90	.46	.38	.20
FATE	.76	.70	.60	.77	.78	.74	-.05	-.06	.05
INTERPERS.REL.	.42	.2 ^R	.33	.40	.62	.58	.10	.02	.17
SHAME	.58	.36	.34	.78	.80	.86	-.08	-.06	-.17
AUTHORITY	.82	.53	.56	.60	.61	.76	.10	.10	.12
Mean	.63	.47	.54	.70	.74	.77	.18	.11	.14

* "INTERPERSONAL RELATIONS" - The themes of this domain involve concepts which play an important role in the Filipino culture. In contrast to the preceeding themes which were used in English, the themes of this domain were presented in their native language. Corresponding to the English themes the following Filipino words were used: obligation - tungkulin, honor - karangalan, fate - palad, interpersonal relations - pakisama, shame - hiya, man of authority - nasa autoridad.

TABLE 2
DOMINANCE OF THEMES AND DOMAINS FOR THE FILIPINO AND AMERICAN
SERVICE GROUPS

Domains/Themes	American			Filipino		
	Rec.	1-10 years	11-25 years	Rec.	1-10 years	11-25 years
"FAMILY"						
FAMILY	892	1123	1080	1118	1048	1019
FATHER	716	925	917	1013	988	914
CHILDREN	702	1019	899	1002	979	985
WIFE	872	1028	1060	1038	986	962
HOME	777	1002	1002	1022	922	966
MOTHER	816	995	980	1057	954	928
Mean	796	1015	990	1042	980	962
"FRIENDS"						
FRIENDS	745	762	821	986	902	904
GIRL	780	1002	982	1055	985	932
MUSIC	799	963	1063	1116	1123	998
HELP	657	762	748	860	863	862
LOYALTY	644	888	827	910	821	850
UNDERSTANDING	650	727	758	878	735	800
Mean	712	851	866	967	905	891
"SOCIETY"						
SOCIETY	674	592	717	983	837	785
PEOPLE	656	897	818	1062	928	967
EQUALITY	598	693	644	883	803	844
FREEDOM	604	746	735	894	824	788
BLACKS	686	781	737	922	889	818
WHITES	628	721	666	862	856	844
Mean	641	738	720	948	856	841

Table 2 (cont.)

Domains/Themes	American			Filipino		
	Rec.	1-10 years	11-25 years	Rec.	1-10 years	11-25 years
"SEX"						
SEX	822	908	912	1065	920	930
MAN	652	818	787	978	871	826
WOMAN	878	1011	975	1102	1038	979
LOVE	819	1005	1050	1108	1027	1045
MARRIAGE	816	1030	1042	1073	956	984
PLEASURE	803	931	879	930	830	856
Mean	798	950	941	1042	940	936
"MONEY"						
MONEY	707	1035	956	1079	1044	1046
CAR	692	1002	1004	1053	984	988
POOR	661	865	788	964	784	786
SAVE	687	893	807	932	895	935
FOOD	685	927	917	992	982	960
HOUSE	694	967	1047	1027	971	945
Mean	688	948	920	1008	943	942
"WORK"						
WORK	746	888	861	972	896	902
BUSINESS	675	798	743	949	834	903
PROFESSION	689	839	787	1070	986	960
SECURITY	713	887	961	953	902	912
BOSS	584	769	756	998	880	791
CAREER	714	896	968	1002	863	903
Mean	687	846	846	990	894	895
"EDUCATION"						
EDUCATION	779	993	979	1098	981	1008
COLLEGE	777	977	923	1034	992	1008
SCHOOL	731	984	1012	1102	1047	981
KNOWLEDGE	685	826	850	968	830	864
DEGREE	630	877	807	966	934	883
SPORTS	875	1094	1002	1108	1066	1034
Mean	746	958	929	1046	976	963

Table 2 (cont.)

Domains/Themes	American			Filipino		
	Rec.	1-10 years	11-25 years	Rec.	1-10 years	11-25 years
"HEALTH"						
HEALTH	785	912	917	989	929	932
LIFE	693	799	867	893	842	842
SICK	825	999	997	1042	926	840
MENTAL HEALTH	579	723	713	840	762	742
DOCTOR	744	879	978	1061	956	860
DEATH	656	795	827	962	781	779
Mean	714	851	883	964	862	849
"RELIGION"						
RELIGION	744	965	933	1009	956	944
GOD	717	932	917	1089	1018	922
FAITH	693	850	826	946	891	878
CHURCH	720	944	904	1072	992	980
Mean	718	923	895	1029	964	931
"SERVICE"						
SERVICE	730	895	885	874	908	874
ADVANCEMENT	720	828	854	924	925	945
PAY	770	958	986	998	1014	909
JOB	786	869	908	1018	914	843
DISCRIMINATION	599	761	658	860	812	805
Mean	721	862	858	934	914	873
"NAVY"						
NAVY	821	927	988	1116	1024	895
COMMANDER	687	826	800	929	848	734
SHIP	786	960	954	1028	972	912
SHORE DUTY	603	734	818	872	779	727
SEA	898	1067	1061	1158	1079	1052
Mean	759	903	924	1021	940	864

Table 2 (cont.)

Domains/Themes	American			Filipino		
	Rec.	1-10 years	11-25 years	Rec.	1-10 years	11-25 years
"RECREATION"						
RECREATION	868	1043	1116	1104	995	995
ENTERTAINMENT	880	970	1112	1028	947	980
GOOD TIME	868	942	1000	1078	984	922
HOBBY	658	896	951	1013	952	974
HAPPINESS	810	949	919	983	932	910
Mean	817	960	1020	1046	962	956
"SELF IMAGE"						
SHIPMATE	750	814	850	974	813	806
ME	692	788	727	970	842	831
I AM	737	829	774	980	893	902
FILIPINO	649	716	753	1105	930	907
AMERICAN	708	818	833	1002	919	928
Mean	767	793	787	1006	880	874
"INTERPERSONAL RELATIONS"*						
OBLIGATION	697	713	751	902	771	770
HONOR	677	648	720	797	666	662
FATE	510	477	438	767	704	637
INTERPERS.REL.	497	499	519	852	746	724
SHAME	493	510	512	656	636	543
MAN OF AUTHORITY	687	717	714	853	680	630
Mean	594	594	609	804	700	661

INTERPERSONAL RELATIONS - Corresponding to the English themes the following Filipino words were used:
obligation - tungkulin; honor - karangalan;
fate - palad; interpersonal relations - pakisama; shame - hiya; man of authority - nasa autoridad.

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